Revised 1/99

CORRES. CONTROL
INCOMING LTR NO.

00156 RF 99

DUE DATE
ACTION

Department of Energy

ROCKY FLATS FIELD OFFICE
P.O. BOX 928
GOLDEN, COLORADO 80402-0928

99 FEB 10 PM 12:15 - RFETS-CC-

99-DOE-03512

FEB 10 1999

DIST.	LTR	ENC
BENSUSSEN, S.J.		
BOGENBERGER, V.		
BORMOLINI, A.M.		
BRAILSFORD, M.D.		
BURDGE, L.		
CARD, R.G.		
COSGROVE, M.M.		
COX, C.M.		
CRAWFORD, A.C.		
DEJONG, V.J.		
DERBY, S.		
DIETERLE, S.E.		
FERRERA, D.W.		
FERRERA, K.P.		
FULTON, J.C.		
GERMAIN, A.L.		
HARDING, W.A.		
HARROUN, W.P.		
HEDAHL, T.G.		
HILL, J.A.		
LEONARD, R.C.		
LEWIS, M.R.		
MARTINEZ, L.A.		
NORTH, K.		
PARKER, A.M.		
PHILLIPS, F.J.	X	
POLSTON, S.		
RODGERS, A.D.		
SHELTON, D.C.		
TUOR, N.R.		
VOORHEIS, G.M.		
Shelton, D	X	
Brooks, L	X	

COR. CONTROL	X	X
ADMN. RECORD	X	X
PATS/T130G		

Reviewed for Addressee
Corres. Control RFP

2/11/99 DK
Date By

Ref Ltr. #

DOE ORDER # 5400.1

Mr. Steve Gunderson
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Mr. Tim Rehder
U.S. Environmental Protection Agency, Region VIII
999 18th Street, Suite 500
Denver, Colorado 80202-2466

Dear Mr. Gunderson and Mr. Rehder:

Pursuant to paragraph 147 of the Rocky Flats Cleanup Agreement, enclosed please find a copy of the Guidance for Updating the Integrated Environmental Management (EM) Corporate Database, Developing National and Site 1999 *Paths to Closure*, and Formulating the FY2001 Budget.

If you have any questions concerning this report, please contact me at (303) 966-5918.

Sincerely,

Joseph A. Legare
Assistant Manager
for Environmental Compliance

Enclosure

cc w/Enc:
Administrative Record
Rocky Flats Citizen Advisory Board

cc w/o Enc:
S. Bell, OCC, RFFO
D. Shelton, K-H
L. Brooks, K-H

ADMIN RECORD
SW-SW-A-03051

(8-89)
EFG (07-90)

United States Government | Department of Energy

memorandum

DATE: DEC 21 1998

REPLY TO ATTN OF: EM-70 (D. Hosaflook, 6-7685)

SUBJECT: Guidance for Updating the Integrated EM Corporate Database, Developing National and Site 1999 *Paths to Closure*, and Formulating the FY 2001 Budget

TO: Distribution

In order to prepare the FY 1999 *Paths to Closure* report and formulate the FY 2001 budget, the Office of Environmental Management (EM) has developed the attached integrated guidance package (Attachment A). The data required by this guidance will be used to develop an integrated EM corporate database, which will form the basis for the national and site 1999 *Paths to Closure*, FY 2001 budget formulation process, and other programmatic analyses. A draft guidance package was circulated to Headquarters and the Field on November 19. Based in part on comments received, major clarifications /modifications included in the guidance are included as Attachment B.

The combined nature of this data collection effort is consistent with EM's new integrated business approach. As a result of the effort to gather data for multiple uses, which range from programmatic planning and analysis, project validation, budget development, and reporting of the Department's environmental liability, we must constantly strive to improve the quality of our data. Data development has to be well documented and auditable. Data requests outlined in the guidance reflect the results of the EM Data Requirements review undertaken by EM's Chief Information Officer. I have signed the data requirements package and will transmit it to you under separate cover.

Additional guidance, which will include line-by-line instructions for data entry and submission, is currently planned for issuance February 1, 1999. Visits to those sites interested in receiving detailed, on-site instruction will be provided. Requests for such training sessions should be made by contacting Jeanne Beard on 202-586-0719.

In addition, individual site calls, with the appropriate Site Team Lead, will be held starting in late January to discuss any issues you may have regarding the integrated guidance, your progress to date in developing life-cycle data and/or budget data, and your individual site *Paths to Closure* report. Gene Schmitt's office will be contacting you in early January to set up these calls.

Thank you for your support as we continue to pursue the implementation of the Integrated Planning, Accountability and Budgeting system. Please contact Joanne Lowry on 202-586-8754 with any questions on this guidance package. Please address budget specific questions to Eli Bronstein on 202-586-8899.

James M. Owendoff
Acting Assistant Secretary
for Environmental Management

Attachments

Distribution: w/attachment:
Acting Assistant Secretary for Environmental Management, EM-1
Acting Director, Office of Safety and Health, EM-4
Acting Deputy Assistant Secretary for Management and Evaluation, EM-10
Deputy Assistant Secretary for Planning, Policy and Budget, EM-20
Acting Deputy Assistant Secretary for Waste Management, EM-30
Acting Deputy Assistant Secretary for Environmental Restoration, EM-40
Acting Deputy Assistant Secretary for Science and Technology, EM-50
Acting Deputy Assistant Secretary for Nuclear Material and Facility Stabilization, EM-60

Site Leads:
S. VanCamp, EM-36
R. Lightner, EM-38
B. Murphie, EM-42
R. Nace, EM-42
S. Robison, EM-44
K. Chaney, EM-45
J. Lehr, EM-50
B. Smith, EM-63
P. Bubar, EM-64
J. Thompson, EM-73

w/o attachment
Manager, Albuquerque Operations Office
Manager, Carlsbad Area Office
Manager, Chicago Operations Office
Manager, Idaho Operations Office
Manager, Nevada Operations Office

Manager, Oakland Operations Office
Manager, Oak Ridge Operations Office
Manager, Ohio Operations Office
Manager, Richland Operations Office
Manager, Rocky Flats Field Office
Manager, Savannah River Operations Office

cc: w/attachment:
L. Feldt, EM-1
J. Melillo, EM-1
J. Arcidiacono, EM-15
M. Crosland, EM-22
J. Beard, EM-23
E. Bronstein, EM-23
J. Werner, EM-24
S. Livingstone, EM-24
D. Tonkay, EM-35
D. Pepson, EM-36
S. Warren, EM-43
J. Letourneau, EM-52
D. Geiser, EM-53
D. Hosaflook, EM-62
J. Lowry, EM-62
C. Guidice, EM-70
S. Bunch, EM-72
R. Brancato, EM-72
K. Kelkenberg, EM-76
R. Nevarez, AL
D. Conway, CAO
J. Anderson, CH
N. Larson, FETC
J. Mularkey, FETC
D. Newman, ID
B. McClure, NV
D. Long, OH
R. Champion, OK
E. Green, OR
B. Burk, RF
J. Daily, RL
J. Buice, SR

ATTACHMENT A

See Attached Guidance Package

ATTACHMENT B

Major Modifications Included since the Draft Was Circulated

- Funding level for development of the life cycle baselines should be based on the $5.75 billion per year allocations provided in the October 20, 1997 guidance package. We will provide this table under separate cover.

- Life-cycle planning data and 2001 budget formulation data is due to Headquarters on April 15, 1999. The requirement remains to submit draft Stream Disposition Data (SDD) to Headquarters on March 15, 1998.

- Development of Nuclear Material Baseline Disposition Maps - draft maps will be provided to the Sites and Headquarters Site Team Leads in the second quarter of FY 1999 for validation. On April 15, 1998, the Sites are to submit validated Nuclear Material Disposition Maps to Headquarters. There will be no new stream data collected to complete the nuclear material disposition maps. Sites will still be required to provide life-cycle performance metrics for nuclear materials in the appropriate Project Baseline Summaries (PBS).

- Clarification has been provided regarding the definition and assignment of SDDs to specific PBSs.

- Revised the stewardship section to recommend, but not require, the creation of a stewardship PBS. Instead EM will request Operations/Field Offices to describe the end state and future use plans for each geographic site, to place each geographic site into one of seven categories, and to provide stewardship-related information for each geographic site specific to its appropriate category. The categories address all possibilities of stewardship situations based on whether or not: there is a need for stewardship; the site is complete; EM is responsible for stewardship; and stewardship costs are reasonably estimable.

- As part of the reconciliation of this year's baseline to last year's baseline, included is the the requirement to reconcile not only cost but schedule differences at the project and site level.

- Added a new section discussing Science and Technology Road mapping.

- Risk information will be collected at the site level only.

- Removed the requirement for a narrative discussion of the effect on cost and schedule of WIPP not opening in January 1999.

- Removed the Data Requirement Summary Sheet attachment. Data requirements are being sent under separate cover.

- Provided the most recent PBS valid list (see Attachment D).

Guidance for the Spring Update to the EM Corporate Database: Life-Cycle Planning Data, FY 2001 Budget Formulation Information, and *Paths to Closure*

Rev. 2.0
December 21, 1998

Table of Contents

CHAPTER 1 INTRODUCTION

This guidance package provides overall policy and implementation information to Department of Energy's (DOE) Operations/Field Offices and Headquarters about the Office of Environmental Management's (EM) annual process of updating the EM Corporate Database, including the data required to prepare EM's annual *Paths to Closure* report and to support the formulation of the FY 2001 budget. EM will use the data to support many other initiatives associated with its major business processes -- planning, budgeting, performance measurement, programmatic analysis, integration, and reporting. EM has agreed to the data required through the Chief Information Officer's (CIO) data requirements process that was conducted as part of the Integrated Planning, Accountability, and Budgeting System - Information System (IPABS-IS) development process.

While this guidance addresses a wide range of topics, it has two particular areas of focus:

- **life-cycle planning information** required to develop both EM National and Site versions of the FY 1999 *Paths to Closure* report; and,
- **the FY 2001 budget formulation process** including information on how to prepare the FY 2001 Integrated Priority Lists (IPLs), estimate FY 2001 new budget authority (BA) allocations by project within prescribed targets, estimate performance measure targets given the BA target, and develop narrative information.

This guidance focuses on policy and implementation; it does not provide specific instructions for how to submit data electronically. EM will issue that guidance in January.

Several changes have been made this year to improve the entire planning, budgeting, and data collection process.

Paths to Closure

Paths to Closure is EM's blueprint for completion of all cleanup work in a safe, cost-effective, and compliant fashion. It serves numerous purposes including:

- to articulate the estimated cost, scope, and schedule to complete the mission of the EM program;
- to relate the near-term budget with the long-term objectives of the EM program;
- to discuss prior year progress in the context of what was planned;
- to explain the interrelationships between activities and initiatives at EM Headquarters and in the Operations/Field Offices; and
- to show issues, challenges, and opportunities associated with the EM program, including areas where EM is seeking ways to reduce cost and become more efficient.

Guidance

EM is issuing the guidance in two phases. The first phase is this document. It includes explanations of data uses and interrelationships to provide context for sites as they assemble their data. The second phase will include the detailed line-by-line instructions for data entry/submission.

Systems/Data Collection

EM is improving the data collection, viewing, and reporting process. Spreadsheets will no longer be used to collect most data. Instead, two web-based tools are currently under development to support the data collection, viewing, and reporting process (see Chapter 10). One tool will focus on stream disposition data (SDD); the other will collect the rest of the life-cycle planning and FY 2001 budget data.

To make updating more efficient, EM will seed data from existing sources, including last year's data submissions, where possible. In addition, EM will provide pick lists wherever possible.

EM will also allow "batch" input of some data. Essentially, this process will allow sites to populate the data into the database without doing data entry through the front end web application. Sites that would like to provide data through batch input must obtain permission from the EM CIO by January 6, 1999. More information about this option may be found in Chapter 10. EM will issue specific procedures for batch input in early January.

Scope of Data Requests

The data being collected this year are based on a thorough requirements review. Changes to the requirements are under change control. This process will ensure that Operations/Field Offices are informed of any potential changes to the required data in a structured manner. The requirements review has resulted in many changes summarized in Exhibit 1-1.

Exhibit 1-1: Summary of Changes to Data Requirements

Requirement	Effect	Discussion
Public/Worker/Environmental (P/W/E) risk data	Streamlined	Data requirements are significantly reduced. EM eliminated P/W/E risk data at the PBS level. Hazard and risk information is required at the Site Summary Level (SSL) only. The Center for Risk Excellence (CRE) has already compiled the Site Risk Profiles, which EM will seed into the IPABS database.
Detailed PBS-specific safety and health cost and full-time equivalent (FTE) data	Eliminated	Sites should submit safety and health cost and FTE data in accordance with Chief Financial Officer (CFO) guidance. EM will require some safety and health narrative information for each project and for the site as a whole. (Note: EM Safety and Health costs should still be included in project cost estimates.)
Support cost data	Eliminated	EM does not require this breakout. The CFO-managed Financial Management Systems Improvement Council (FMSIC) system will collect support cost data. (Note: EM support costs should still be included in project cost estimates.)
Contracting data	Streamlined	Less data are required.
EM facilities list	Expanded	A more complete EM facilities list is required to track facility status and disposition more effectively.

Requirement	Effect	Discussion
Stream disposition data (SDD)	Improved	EM has modified SDD, formerly Consolidated Project Quantity Table (CPQT) data, to improve data quality, enhance integration studies, and support HQ requirements more effectively.
Annual baseline reconciliation data	Improved	EM has eliminated the enhanced performance section of each PBS and replaced it with an annual baseline reconciliation.
Transportation data	New	EM has added transportation data for Department of Transportation (DOT)-regulated streams to improve integration analysis.
Technical detail	New	EM has added technical detail including chemical and radionuclide constituent information to meet external EM Headquarters reporting requirements.

Science and Technology Linkages

While the majority of science and technology data submitted last year was linked to the PBSs, draft disposition maps, and to the preliminary critical path analysis, PBS managers did not appear to exhibit ownership of the data. To achieve a more focused and better aligned set of science and technology investments, EM has decided to move the science and technology information directly to the PBS level. EM is making a significant change in the manner in which it develops and prioritizes investments in science and technology. The goal is to integrate Focus Area Work Packages and PBSs. To achieve this integration, the PBS managers and the Focus Area teams need to work together to jointly identify those Focus Area Work Packages which are relevant to specific PBSs. To accomplish this correlation, there will be a data field in the technical approach section of the PBS which allows the PBS manager to specifically identify those Focus Area Work Packages, if any, that are relevant to their project. This integration should build partnerships between the PBS managers and the Focus Area teams to ensure that the work packages are tied to projects, that the Focus Area teams will be responsive to the PBS managers, and ultimately that PBS managers will be able to measure Focus Area performance.

Stream Disposition Data and Linkages

Em will enter Stream Disposition Data directly into a system that can "draw" disposition maps. This new system will increase site ownership of the data. The data must be consistent with site life-cycle baselines and will be an integral part of the EM Corporate Database. This year, each storage or disposition stream must be associated with one and only one PBS; however, one PBS may have more than one storage or disposition stream. Refer to Chapter 5 for more detailed information regarding SDD and disposition maps.

This page intentionally left blank.

CHAPTER 2 SCHEDULE

The following list summarizes key dates relevant to this guidance and the *Paths to Closure* update process. Attachment A provides further scheduling details and identifies where specific deadlines fit into EM's overall planning, budgeting, execution, and evaluation processes.

Key Dates*

December 21st	Final policy and implementation guidance is issued
January 15th	Instructions and tool for providing SDD are available (this tool is called the Analysis and Visualization System or AVS)
January 31st	Final date to request changes to the PBS structure
February 1st	Instructions and tool for providing life-cycle planning and FY 2001 formulation data are available (this tool is called the Limited Updating, Viewing, and Reporting Tool)
March 15th	Draft SDD submitted in AVS
April 15th	Final SDD in AVS
April 15th	Life-cycle planning data submitted in Limited Updating, Viewing, and Reporting Tool
April 15th	FY 2001 formulation data submitted in Limited Updating, Viewing, and Reporting Tool
April 15th	Validated draft Nuclear Materials Baseline Disposition Maps returned to HQ
April 30th	Updates to site summaries for the national *Paths to Closure* due**
May 14th	Draft site *Paths to Closure* reports due
June	Site and national *Paths to Closure* issued

* See Attachment B for a consolidated summary of all of the products that are due (with references to specific sections of this guidance).

** See Chapter 11 for detailed guidance

EM requires draft SDD by March 15, 1999 to improve the overall quality of the final data submission. Between March 15th and April 15th, Site Leads, the EM integration team, and others will review the data and work with the sites to eliminate "disconnects" and improve data quality. With respect to the detailed Stream Characteristics Information (see requirement 1029 in Section 8.2), if Sites can not meet the April 15th date, Headquarters is willing to work with sites on an individual basis to establish a more feasible schedule. After EM reviews the April 15th data submittal, a locked or frozen "FY 1999 Reporting Archive" of the Corporate Database will be taken off-line and used to develop the *Paths to Closure* report and support other Headquarters analytical and reporting needs. The "working data" will continue to be available for updating at the sites' convenience, but the April 15th archive will become a "read only" version that can no longer be edited (see Section 10.1 for further details). The April 15th data will represent a comprehensive, integrated, consistent, snapshot of the EM program. Site and National *Paths to Closure* reports will be consistent with the April 15th data.

This page intentionally left blank.

CHAPTER 3 BACKGROUND - THE INTEGRATED PLANNING, ACCOUNTABILITY, AND BUDGETING SYSTEM (IPABS)

EM Headquarters convened an EM Business Process Improvement Team (PIT) in 1996 and 1997 to provide recommendations on improving the EM management system. The PIT recommended restructuring and streamlining independent pieces of the EM management system into one cohesive system supporting the EM mission. The PIT also recommended fundamental improvements such as "projectizing" all EM work and streamlining the financial management process. In 1997, EM conceived the Integrated Planning, Accountability, and Budgeting System (IPABS). The foundation of IPABS includes:

- the *IPABS Handbook*[1], which describes the high-level EM business processes (planning, budgeting, execution, and evaluation);
- the EM Corporate Database, which supports EM information requirements as outlined in the data requirements; and,
- the IPABS-IS, which is the user interface for data input and reporting.

IPABS serves as the unifying EM system for planning, budget decisions, oversight of projects, and actions taken to meet EM program objectives. It is consistent with the DOE Strategic Management System which is the DOE-level management system for aligning planning, budget formulation, budget execution, and evaluation with a focus on results. The re-engineering and streamlining efforts that accompanied IPABS resulted in several fundamental changes to EM business processes and information needs. The *IPABS Handbook* documents two major components of the new EM management vision as embodied by IPABS:

- The high-level business processes that comprise the core of EM's business:
  - Planning (Life-Cycle Planning)
  - Budgeting (Budget Formulation)
  - Execution (Budget Execution)
  - Evaluation (Execution Tracking)

- Integrating elements that tie together EM business processes and information requirements:
  - organization of all work into **Projects**;
  - development of **PBSs** as the primary source of summary project information;
  - use of **Performance Measures** to ensure accountability;
  - development of **Integrated Life-Cycle Planning and Budget Guidance**; and,
  - development and implementation of the **IPABS-IS** and the supporting **EM Corporate Database** to meet IPABS information requirements.

A major initiative is underway to develop the database and information system to support IPABS (see Attachment C for the scope and objectives). IPABS-IS and the Corporate Database will support EM's high-level business processes. The IPABS-IS/Corporate Database system will improve the timeliness and effectiveness of EM data gathering from the Operations/Field Office for use by EM Headquarters. The EM Corporate Database will house/archive data used by EM to meet core business objectives. A

[1]Integrated Planning, Accountability, and Budgeting System Handbook, U.S. Department of Energy, Office of Environmental Management, Revision 8.0, November 4, 1998.

central Corporate Database will reduce the number of data-gathering tasks Operations/Field Office perform, improve data entry and validation, and provide a clear "audit trail" that tracks the data from input, through reporting, and analysis. The data will be accessible through various desktop tools.

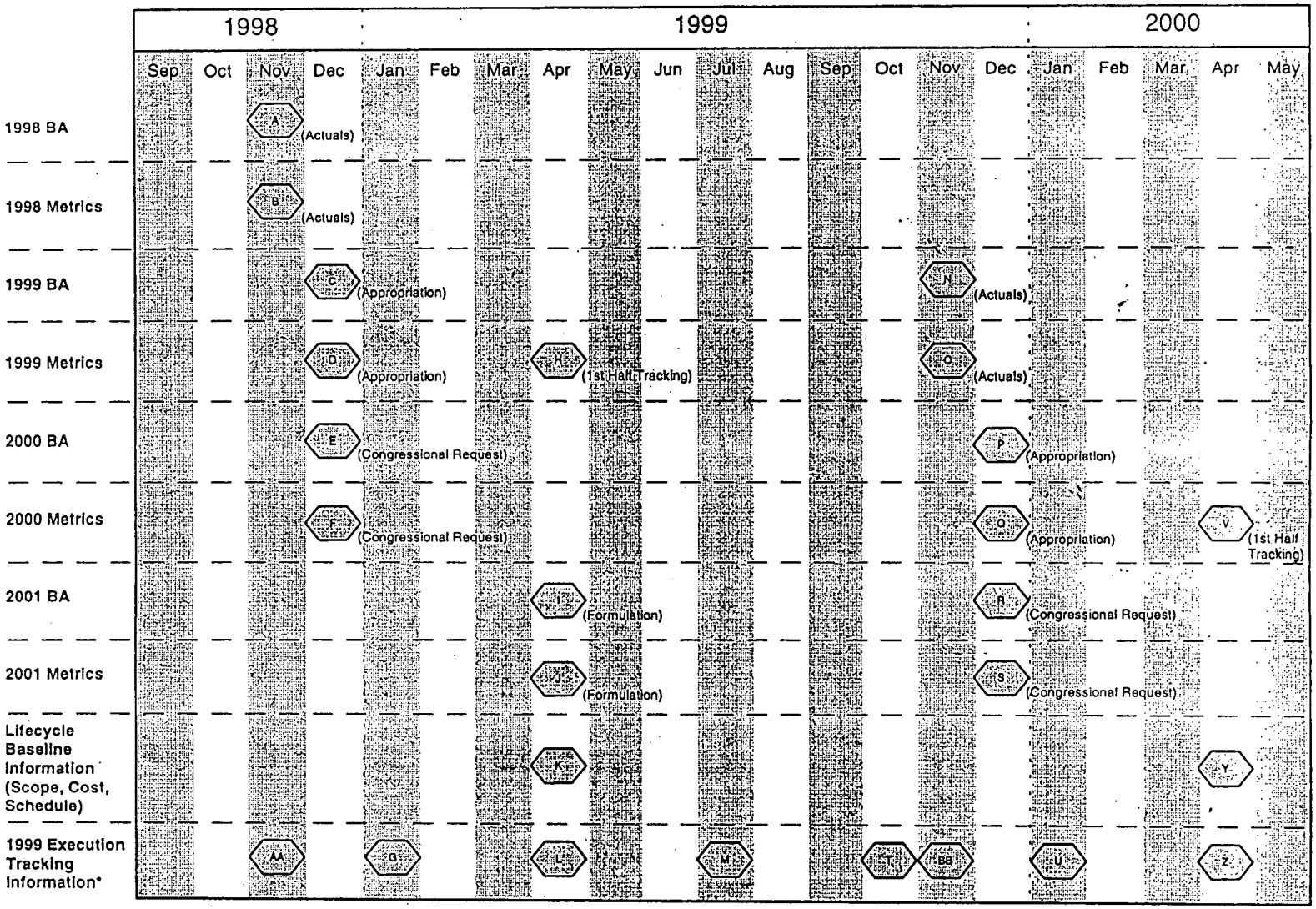
Historically, overlapping requests for data and information occurred without coordinating the timing or content of such requests. Various EM Headquarters offices and National Programs kept similar sets of data without coordinating them. Existing data sets were updated in an ad hoc fashion, and versions of information produced for a particular purpose could not always be linked to the original data sources.

Now, EM will establish a set schedule for updating the Corporate Database. Exhibit 3-1 and Exhibit 3-2 show the updating frequency for various types of data. EM will update some data in the Fall (October - December) as part of a limited update to support critical budget and execution documents. EM will update most data, however, in the Spring (February - April). During the fiscal year, EM collects performance data on a monthly or quarterly basis. The frequency and timing support EM Headquarters' business processes with accurate and consistent information. Chapter 9 discusses the numerous products in which the collected data are used.

Exhibit 3-1: How the Data in Exhibit 3-2 Are Collected:

Type of Data	Exhibit 3-2 Reference	Data Collection Tool
Budget Data for the Congressional Budget Submission and Other Key Performance Reports and Documents	A,B,C,D,E,F	Fall Budget Data Template Software
Life-Cycle Planning and FY 2001 Budget Formulation	I, J, K	AVS System and Limited Updating, Viewing, and Reporting Tool
Execution Tracking for FY 1998 and FY 1999	AA, G, L, M, T	Progress Tracking System (PTS)
Performance Metrics Tracking for FY 1999	H	Spreadsheets
All Life-Cycle Planning, Budgeting, and Execution Data	N, O, P, Q, R, S, BB, U, V, Y, Z	IPABS-IS

Until IPABS-IS is operational in the Fall of 1999, EM will use alternate data collection systems to populate the Corporate Database. For the information required in response to this guidance, EM will use the AVS and Limited Updating, Viewing, and Reporting Tool to enter data into the Corporate Database. EM will collect execution data in the Progress Tracking System (PTS) for FY 1999.



DRAFT

* Execution Tracking information will be collected monthly for EM-50 TTPs and DNFSB milestones. All other Execution Tracking information will be collected quarterly.

November 12, 1998
Version 4.1

Exhibit 3-2: Data Collection Schedule by Data Type

This page intentionally left blank.

Chapter 4 EM Data Interrelationships

4.1 Overview of the Data

The data requested as part of this guidance reflect agreements made during the EM CIO data requirements review. All of the data discussed in this section map to specific data requirements contained in the draft *IPABS-IS Data Requirements Report*[2]. Chapter 8 provides more information about the specific data requirements in the *IPABS-IS Data Requirements Report.*

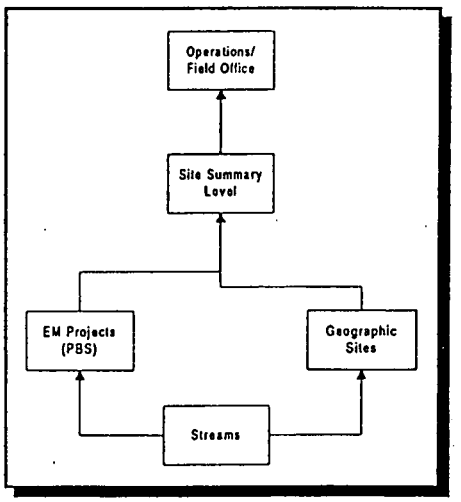
IPABS focuses on building blocks of work called EM projects. Currently, about 375 EM projects comprise the work necessary to complete the EM mission. Attachment D provides a current list of approved projects. The list reflects approved changes since last year's *Paths to Closure* was issued; the list is consistent with the one being used to prepare the FY 2000 Congressional Budget Request. The Project Baseline Summary or **PBS** describes major characteristics of each EM project.

Changes in PBS Structure

If Operations/Field Offices want to change their PBS structure prior to submission of data, they must make the request in writing by January 31, 1999. See Attachment E for details.

The baseline section of each PBS contains a description of the cost, schedule, and work scope associated with a discrete set of activities. Because each Operations/Field Office manages its work with a customized project management approach, the PBS represents a summary of the cost, schedule, and work scope; it is not the actual management baseline. Each Operations/Field Office maintains its own work breakdown structure, earned value system, and work execution system that contain detailed management baselines. In general, site management baselines are maintained with a level of detail that make it prohibitive to duplicate them within Headquarters systems. In many cases, the scope of work is so large that a single PBS represents several similar projects. Regardless of the number of projects at a site represented by a PBS, the interpretation of the baseline cost, schedule, and work scope information in the PBS should be the same across the site. The PBS serves as an appropriate level for primary data collection and information management at Headquarters.

In addition to data collected at the PBS level, EM collects data on other levels including the Stream, Geographic Site, Site Summary Level (which represents the Installation Level for budgeting purposes), or Operations/Field Office. The box to the right shows the general relationship among data collection levels. Some data are collected by **Stream**. Stream Disposition Data (SDD) are associated with tracking contaminated media, waste, and spent nuclear fuel from their current locations to their final disposition. Information about stream inventories, generation rates, disposition, transportation needs, radiological/chemical constituents, programmatic risk, and milestones are collected as part of SDD. This guidance defines streams as being stored or dispositioned by only one EM Project (i.e., PBS) at a time. A **Geographic Site** is an area of land (or series of buildings) where EM has or is conducting cleanup work (see Attachment F for a



Relationship of Data Levels

[2]A draft of this report was released in early December by the EM CIO.

list of geographic sites). The **Site Summary Level** (SSL) is a level of data collection and reporting that represents one or many geographic sites organized into logical groupings for the purposes of simplifying budget-related data requests. For example, Hanford is both a Geographic Site and a SSL; however, Sandia National Laboratory (SNL) is a SSL with two Geographic Sites, SNL-NM and SNL-CA. All projects map into one and only one SSL (Note: Projects do not necessarily map into one and only one Geographic Site). The **Operations/Field Office** level is used on a limited basis as a data collection level; moreover, all PBS, Geographic Site, or SSL data can be rolled up to an Operations/Field Office level. For a more detailed explanation of the data EM collects at each level, refer to Chapter 8.

4.2 Key Data Groupings

In addition to data collection level, data can be categorized by logical subject-matter groupings. Some of the key subject groupings include:

- Baseline Information
- Budget Information
- Performance Measures
- Stream Disposition Data (SDD)
- Critical Closure Path Information
- Programmatic Risk Information
- Science and Technology Information
- Public, Worker, and Environmental Risk

After summarizing these groups of data, this chapter will discuss how they relate to one another.

4.2.1 Baseline Information

The life-cycle work scope for the EM program is communicated through data associated with site baselines. Site baselines are the starting point for all information contained in PBSs (including the budget data). The baseline elements in the PBS (along with SDD) form a complete summary picture from EM project start (for those projects that began after or in FY 1997) through completion. In addition to future planning information, Project Managers must maintain a historical record for each EM project including actual cost, milestone completions, and performance. Project execution data, collected quarterly (through PTS for FY 1999), are maintained to track progress against the baseline for each PBS.

Items That Reflect the Baseline

- Life-cycle cost estimates by year (or block of years)
- Planned completion dates for milestones including those milestones on the critical path for site completion
- Planned completion dates for release sites and facilities
- Stream Disposition Data (SDD) and disposition maps and the associated data found in the SDD
- End state and other associated scope narrative
- Project execution data
- Project execution information including actual costs, actual milestone completion dates, and actual performance measures.

4.2.2 Budget Information

Budget information in the Corporate Database primarily consists of new budget authority (BA) and performance goals along with associated narratives used in budget documentation. Budget information is consistent with targets provided by the Department of Energy's CFO and the Office of

Management and Budget (OMB). Budget information is focused on a three-year window. With minor exceptions, every PBS has a single corresponding budget and reporting (B&R) code around which EM formulates and executes budgets. Budget authority at the B&R level are of audit quality. In addition to B&R level data, the Operations/Field Office must provide an estimate of BA by PBS divided into prescribed categories and subcategories to communicate the type and estimated BA associated with work that EM performs. These categories and subcategories align with EM corporate performance measures and can be found in Attachment G. These estimates improve communication during the budget formulation and justification phases but are not of audit quality (i.e., sites and Headquarters may not track costs this way in their accounting and financial systems).

Other budget information includes Project Data Sheets for line item construction projects and an Integrated Priority List (IPL), which each Operations/Field Office must generate for the budget formulation year. The IPL prioritizes activities within EM projects starting with the most important to fund. The IPL, therefore, is a tool to evaluate impacts of reduced and increased funding levels.

4.2.3 Performance Measures

The primary purpose of performance measurement in EM is to demonstrate and improve progress toward accomplishing the *Path to Closure* vision, goals, and objectives (i.e., the safe, compliant completion of the EM mission at DOE sites in a cost-effective manner). EM has developed a single set of corporate performance measures that focus on achieving EM's *Paths to Closure* end states and program outcomes, and on those crosscutting areas essential to accomplishing program results effectively and efficiently (i.e., financial, safety and health, risk reduction, and stakeholder trust and confidence measures). Performance measures are integral to the budget. In fact, the budget is a performance-based budget in accordance with the Government Performance and Results Act (GPRA). EM establishes fiscal year goals every year (representing an annual "slice" of the life-cycle objectives) and collects actual results on a periodic basis for all EM performance measures. A summary of EM measures can be found in Attachment G. Definitions for each measure were provided in the October 21, 1998 budget guidance. Uses for performance measure data can be found in Chapter 9. Most measures are collected and tracked by PBS although some measures are tracked at the site or Operations/Field Office level.

4.2.4 Stream Disposition Data

SDD represent data elements associated with EM managed contaminated media (e.g., soils, groundwater, buildings), waste streams (e.g., low level waste, mixed low level waste, etc.), and spent nuclear fuel. Formerly known as CPQT information, SDD compose the underlying data for disposition maps and integration planning. All streams are associated with an EM project for the purposes of managerial and financial accountability. Stream data are an important component of the baseline; they document the life-cycle plans for the disposition of contaminated media, waste, and spent nuclear fuel. Disposition maps include wastewater streams; the maps also contain liquid waste streams that are non-wastewater (e.g., HLW in tanks). EM is not requesting that sites provide life-cycle nuclear material data in the SDD, but instead will provide draft Nuclear Material Baseline Disposition Maps for each site to validate and submit to Headquarters by April 15, 1999. Maps are not in lieu of annual life-cycle profile.

4.2.5 Critical Closure Path

The subset of PBS milestones and events that must occur on schedule in order for EM to complete its mission at a given geographic site as planned represent the critical closure path. Sites can graphically illustrate the sequence of activities that limit site closure schedules using critical closure path milestone

information. EM will also link SDD to the critical closure path by asking each Operations/Field Office to identify those disposition streams that are on the critical closure path.

The EM Program Integration team will be reviewing site critical closure path data to verify that inter-site dependencies are adequately captured. This review will complement reviews of individual site critical closure paths by HQ site teams. The integration team review will also ensure consistency between sites' critical closure paths where inter-site transfers are involved. The EM Program Integration team will work directly with field contacts and program area integration team members once data are submitted in the Spring to accomplish this review.

4.2.6 Programmatic Risk Information

Programmatic risk management is an important element of EM's overall program management strategy. Programmatic risk data identify disposition streams (from the SDD) and the critical closure path milestones that may require additional management attention due to uncertainties with respect to key planning assumptions including scope definition, science and technology availability, and inter-site dependencies. Attachment H contains a summary of the programmatic risk scoring definitions that sites must use in evaluating streams and activities/events. There is a new requirement for sites to identify facility and equipment limitations that are barriers to stream disposition. Programmatic risk measures potential risks to cost and schedule (see Section 4.3.4); this risk is different from public, worker, or environmental (P/W/E) risks which are discussed below (Section 4.2.8).

Programmatic risk is a relatively new project management tool and will continue to require further improvement as sites gain implementation experience. In addition, EM is in the initial stages of establishing a Project Management organization at Headquarters. Once this office is established, it will become the champion for programmatic risk, which may result in an in-depth review of this tool and the definition of this tool. Please note that this process will be coordinated with the ongoing data requirements review.

4.2.7 Science and Technology Information

The IPABS process has been instrumental in linking science and technology needs at EM sites to science and technology development and deployment efforts in EM's Office of Science and Technology. Linkages are made through streams, critical events, and PBSs. Key data elements for each project include FY 1999 site science and technology needs and opportunities, Focus Area Work Packages, technology deployment, opportunities for risk reduction, and potential cost savings. Data are used for the validation of FY 1999 needs statements and FY 2000 Focus Area Work Packages; the development of an improved national prioritization scheme for Office of Science and Technology funded activities; and an improved ability to measure the outcomes of EM's investments in science and technology.

4.2.8 Public, Worker, and Environmental Risk

Public, worker, and environmental (P/W/E) risk should be an integral part of setting priorities, sequencing project work, measuring progress, and demonstrating that EM is managing its hazards to acceptable risk levels, with institutional controls in place. In cases where hazards cannot presently be managed to acceptable or low risk levels, or if continued to be presently managed at the current level will result in more serious risks in the longer term, EM must show that it is addressing these "exception" activities first.

Risk information is collected at the SSL and will highlight the hazards and associated risks deemed important to the sites and their local stakeholders, regulators, and Tribal Nations. It includes site hazard information tables based on the Site Risk Profiles and articulates the site hazard abatement story and associated actual and potential risks from a holistic point of view.

To ensure worker safety, EM is committed to implementing the Integrated Safety Management (ISM) program. The five ISM core functions are: work scope definition, hazards analysis, development and implementation of controls, execution of work within controls, and feedback and continuous improvement. The work scope, hazard, and work performance information is collected at the PBS level. The controls and feedback/improvement mechanisms are described at the SSL.

In completing the S&H and risk information, contractors should consider consistency with similar information required by the CFO Field Budget Call.

4.3 Interrelationships

One of EM's goals for the Corporate Database and IPABS-IS is to integrate data collection across Headquarters' business processes. As part of this integration, EM will streamline and report the data collection based on four EM business processes: budget execution, budget formulation, life-cycle planning, and execution tracking. The following sub-sections discuss in more detail the interrelationships of the key data groupings identified in section 4.2.

4.3.1 Baselines and the Budget

EM uses the project as the key building block for planning, budgeting, and managing its work. Starting with FY 1999, EM's B&R codes center around EM projects so that budgeting and execution tie more closely with life-cycle planning and site baselines. This tie is found in planning documentation such as *Paths to Closure* and in budget documentation, which will discuss the budget in the context of the program's life-cycle needs. In fact, sites should base their budget requests directly on site baseline planning information. During budget formulation, each Operations/Field Office will develop preliminary budget information based on Headquarter's provided targets and the Operations/Field Office's baseline budget requirements. As the budget process culminates in an appropriation, sites will be required to track budget assumptions and how they affect baseline planning assumptions. During execution, sites will need to monitor performance against the baseline in site project control systems. As each year closes, EM will require a final reconciliation of actual performance data (costs, BA, milestones, measures) from site project control systems back to what EM stated in key planning and budget documentation. In the end, EM needs to be able to monitor both site baseline and budget information and how they relate to one another over time. While the detailed explanation of differences between the baseline and budget is not a reporting requirement; Operations/Field Offices should maintain sufficient documentation to provide an explanation if requested.

Dollars in the Baseline and the Budget

PBSs provide two types of dollar amounts to Headquarters. The baseline portion of the PBS (Part A in the 1998 PBSs) contains dollar amounts on a cost basis. This method follows traditional project management principles which are focused on estimated and actual costs. The budget portion of the PBS (Part B of the 1998 PBSs) reflects budget authority or BA. Budget documentation will continue to reflect BA while estimated baseline costs will continue to be used to portray the life-cycle requirements necessary to complete the estimated work scope for the EM program.

Fundamentally, there are definitional differences between costs and BA that always lead to differences in the dollar amounts reported for any given year in the baseline and budget sections of the PBS. Some of the reasons for variations between cost and BA in a given year include:

- Uncosted balances and carryover;
- Variances carried in baselines; and,
- Variations due to the timing differences between BA authorization and outlays, particularly in the case of privatization projects.

However, it is not appropriate for the difference to be the result of conflicts between the policy direction for FY 1999 and/or FY 2000 found in the FY 2000 Congressional budget and the current Operations/Field Office baseline planning assumptions. In this case, Operations/Field Offices must adjust baseline scope, cost, and schedule assumptions so that they are consistent. While it will not be necessary to adjust baselines due to policy changes on a regular basis, it is important that *Paths to Closure,* which reports baselines, represent significant new policy changes resulting from Congressional requests. For example, if Congress were to fund only one of the two canyons at Savannah River, the Operations/Field Office should change its baseline to reflect this policy direction. EM Headquarters will identify those directed changes found in the FY 2000 budget and provide the list to Operations/Field Offices.

Performance Measures in the Baseline and Budget

For some corporate performance measures, EM maintains life-cycle performance objectives as part of the baseline. Life-cycle performance objectives include an annualized:

- Estimate of the release sites and facilities that will be completed;
- Estimate of the waste that will be treated, stored, and disposed;
- Amount of nuclear materials and spent fuel that will be stabilized and made disposition-ready; and,
- Estimate of the completion date of the EM mission at each geographic site.

Within baselines, annualized performance objectives sum to the "universe" of scope for that metric. For example, the sum of the estimated annualized amounts of waste to be treated represents the total estimated amount of waste that needs to be treated for EM to complete its mission. Each year, when sites update the PBSs, SDD and other corporate information, they adjust baseline annualized performance objectives so that they reflect any changes in scope, planning assumptions, or schedule, consistent with the baseline. The baseline (as summarized in the PBSs and SDD) always reflects the complete universe of scope across years from 1997 through project completion.

Performance Measures- the criterion upon which accomplishments will be based (e.g., release sites or low level waste).

Performance Goals- the numerical target that is associated with each performance measure (e.g., 10,000 cubic meters).

Performance Commitments- the performance goals that Field Managers commit to in the current year only (also called management commitments).

EM uses these same measures to justify it's annual budget request. In the budget process, performance measures focus on the three year budget window, consistent with BA targets. Annualized performance commitments for the execution year and goals for the budget formulation year are used in numerous documents against which EM must eventually report. One key document is the Congressional Budget Request which summarizes performance:

- Accomplishments in the prior year;
- Objectives for the execution year based on the most recent appropriation; and
- Objectives for the budget formulation year based on the President's request to Congress.

EM will use the data collected in the Fall to develop the Congressional Budget Request. Recently, EM collected performance measure actuals for FY 1998 and is now collecting performance measure targets for FY 1999 and FY 2000 (based on the appropriation and request respectively) by PBS in the "Budget Data Template". This template is the vehicle by which Operations/Field Offices report to Headquarters the budget authority and performance measure data for FY 1998, FY 1999, and FY 2000.

Because of variances carried in baselines (within baseline change thresholds) and timing factors associated with data collection, it is possible that annual performance goals for the three year budget window as reflected in the baseline section of a PBS, could differ from annual performance goals for the three year budget window as reflected in the budget section of the PBS. The portrayal of site baselines in PBSs each year must be consistent with (but not necessarily identical to) Congressional Budget Requests.

It is essential that EM can always provide traceability for the performance commitments in the Congressional Budget Request back to the baselines. This need for traceability poses a challenge to Headquarters and Operations/Field Offices as budgeting and baseline planning assumptions change through time and requires both Operations/Field Office and Headquarters diligence in documenting changes in both baseline and budget documentation. Site project control systems should be the primary method by which Project Managers track and document differences. While these differences do not need to be routinely reported to Headquarters, sites should always be prepared to provide an explanation if requested.

Dollars and Metrics for FY 1998

As EM closes out FY 1998, it must collect data that reflects actuals for the fiscal year (e.g., baseline costs, BA, performance measures, etc.). The budget section of the PBS should show how much new BA was actually allocated to each project. The baseline section of the PBS should show how much is costed by project (based on the recast for FY 1998). Performance measures for FY 1998 will show what was planned for FY 1998 (as stated in the FY 1999 Congressional Budget Request) along with what was actually accomplished. Milestone information will also show what was planned and accomplished as reflected in the PBS. BA and cost may differ for definitional reasons, but both relate to the scope of work that was accomplished in FY 1998. Each Operations/Field Office should be prepared to explain why actual performance varied from what was stated in the FY 1998 column of the FY 1999 Congressional Budget Request. Furthermore, Operations/Field Offices will need to explain how they performed relative to their baseline planning objectives for FY 1998 and what impact that performance will have on the overall life-cycle cost and schedule of the EM program under their jurisdiction.

Dollars and Metrics for FY 1999

FY 1999 is currently the execution year. The planned scope reflected in the baseline section of the PBSs for FY 1999 must be consistent with the scope and schedule articulated in the FY 1999 column of the FY 2000 Congressional budget (i.e., the same basic policy assumptions must be consistent). However, specific performance measure goals in the budget may vary from those in the baseline due to normal variances in the baseline and the timing of data collection. EM Headquarters has already requested sites to explain any major variances between the FY 1999 performance goals made to Congress in the FY 1999 Congressional request and the latest performance goals for FY 1999 as documented in the FY 2000 Congressional request. As the year progresses, Operations/Field Offices will need to record actual accomplishments in site project control systems and provide accurate reports on performance in FY 1999

against planned BA, planned cost, planned milestones, and planned performance goals. As in FY 1998, EM will close out FY 1999 and require documentation to explain variances between budget and baseline performance goals and actual results.

Dollars and Metrics for FY 2000

For FY 2000, baseline scope objectives must be consistent with the policy assumptions used in the FY 2000 Congressional budget. BA and performance goals for FY 2000 will be documented in the FY 2000 Congressional Budget Request. At about the same time, Operations/Field Offices will provide an update to Headquarters of baseline information. Operations/Field Offices should be able to explain any differences between the FY 2000 baseline accomplishments in FY 2000 and FY 2000 Congressional budget accomplishments in FY 2000. Next Fall, Operations/Field Offices will provide an update to the FY 2000 performance goals based on the FY 2000 appropriation and will then proceed to execute work in FY 2000. At the end of FY 2000, Operations/Field Offices should be prepared to compare FY 2000 actuals back to the original goals set in the FY 2000 Congressional Budget Request.

Dollars and Metrics for FY 2001

For FY 2001, Headquarters recognizes that each Operations/Field Office is just beginning the budget formulation process and that planning assumptions developed for initial budget targets will differ from the baseline. Therefore, for FY 2001, baseline scope objectives and budget scope objectives will show a variance. The differences between what presumably can be accomplished in the baseline (the "planning level") versus what presumably can be accomplished at the BA "target level" will be communicated through several mechanisms including:

- The IPL - The FY 2001 IPL will build from zero up to the baseline (i.e., planning) requirements level (in priority order).

- Draft FY 2001 Performance Measures - In April, sites will be required to submit preliminary performance goals for FY 2001 based on the BA target. These goals will differ from baseline goals for FY 2001. The difference will primarily be attributable to the difference between the BA target-level funding and the full requirements as documented in the baseline section of the PBS.

Use of Baseline and Budget Data in *Paths to Closure*

Paths to Closure needs to fully reflect the life-cycle scope and cost as described in site baselines and the baseline section of the PBS. At the same time, *Paths to Closure* must be consistent with the FY 2000 Congressional Budget Request including both the policy direction and BA levels. Therefore, EM will take the following approach in *Paths to Closure*:

- Base any life-cycle estimates of cost or total metrics (total volumes of waste, total number of release sites, etc.) on the baseline. Use of baseline information for life-cycle reporting is necessary to capture the entire scope of the EM program.

- Mention BA in any discussion of annualized dollar amounts for FY 1998, FY 1999, and/or FY 2000. BA must be used to ensure consistency with the FY 2000 Congressional budget. However, if the discussion warrants a clear distinction between BA and cost, the baseline cost numbers will be presented and explained as well.

- Base any discussion of performance measures for FY 1998 or FY 1999 on the FY 1998 or FY 1999 column of the Congressional budget. Actual accomplishments for FY 1998 should be consistent between any baseline or budget documentation. FY 1999, performance targets

may differ in baseline documentation (as reflected in the baseline section of the PBS or SDD) as a result of normal variances carried in baselines.

- State in any discussion of metrics for FY 2000 whether scope measures are based on budget estimates (consistent with the Congressional Budget Request) or the baseline (consistent with the baseline section of the PBSs and SDD).

- Base any discussion of dollars or metrics in FY 2001 on the baseline. The FY 2001 budget will be in the formulation process; as a result, it will not be appropriate to discuss the specific numbers in the FY 1999 version of *Paths to Closure*.

4.3.2 Performance Measures and Stream Disposition Data

Stream level data can be summarized by performance measure reporting category (e.g., LLW Disposal - On-Site/Commercial) at the PBS level. This linkage between life-cycle disposition planning numbers and performance measures allows EM to discuss annual goals and objectives in the context of total program scope. There are however, two factors preventing performance measure goals from simply being a mathematical rollup of all SDD:

- Not all streams are considered "performance measure streams". For example, remediation waste is currently not counted as a performance measure. Therefore, there are " methods for how specific budget/performance categories are computed from SDD in terms of which stream to count and which streams to ignore. EM will provide specific instructions for how to identify "performance measure streams" in the Detailed Stream Disposition Data Instructions.

- SDD reflect the baseline, not the budget in the planning and formulation years. Therefore, the budget performance measure targets for these years could vary from the mathematically-derived volume from the SDD. However, while not the same, there is an expectation that the budget-based performance targets are related to the rolled-up "performance measure streams" from the SDD.

Operations/Field Offices should keep the relationship between "performance measure streams" and all project-level streams in mind as they update performance measure targets (as part of budget updates) and SDD (as part of baseline updates). As discussed above, Operations/Field Offices will be required to explain differences between baseline (SDD) and budget (project-level) performance targets in any given year and explain differences in targets for any given year over the life cycle. As each year is closed out, EM will require preliminary actuals for project-level performance measures in the Fall. In the Spring, when Operations/Field Offices update SDD-level information, there will be an expectation that the "performance measure" stream-level actuals for the prior year (from site baseline documentation) will equal the total project-level prior year actuals (from budget documentation). For example, for FY 1998, the sum of "performance measure stream" actuals for FY 1998 should be the same as the FY 1998 project-level actuals reported in the limited fall budget update.

For the execution year, the general rules from section 4.3.1 apply. Budget-based performance targets should be based on the derived numbers from the baseline SDD but they may differ due to variances carried in baselines and timing differences in data collection. Operations/Field Offices should be able to explain these differences. For the budget year, differences between SDD and performance measure targets (in the Congressional Budget Request) should be explainable. From the Congressional budget submission, through appropriations, execution, and year-end close-out, Operations/Field Offices should be prepared to explain variations between SDD estimates and performance measures.

4.3.3 Stream Disposition Data and the Critical Closure Path

Annual disposition planning data (i.e., disposition/shipping schedules) must be internally consistent with project completion and site closure data reflected elsewhere in the PBS or critical closure path milestones. Certain annual disposition data form the basis for determining completion and closure schedules. In order to improve data interrelationships, EM is requesting that Operations/Field Offices identify streams that are on or influence the critical closure path. This identification is being accomplished through a simple Yes/No field in the SDD tables.

4.3.4 Milestones and the Critical Closure Path

As part of the baseline documentation, each PBS must contain a list of important life cycle milestones with planned completion dates. Headquarters has identified milestones that must be included in the PBS:

- Enforceable Agreement Commitments
- Defense Nuclear Facilities Safety Board (DNFSB) Commitments
- Management Commitments (performance commitments in current year)
- Major Decision Point (e.g., Environmental Impact Statements (EISs), RODs)
- Inter-site Implications
- Critical Decision (those tracked for line item projects, strategic systems, etc.)
- Critical Closure Path
- Project Start and End Dates.

Last year, as part of the data collection for *Paths to Closure*, EM Headquarters required a separate list of critical closure activities and events outside of the PBS. This method of collection led to duplicative and sometimes conflicting data submissions from the Operations/Field Offices. This year, EM is establishing a stronger tie between project milestones and the critical closure path. Operations/Field Offices will "tag" project milestones on the critical path instead of providing a separate list. One benefit of this approach is the linkage of critical closure milestones directly to execution tracking. EM will track project milestones on a quarterly basis in the execution tracking system. Therefore, each quarter, EM Headquarters will receive a status on all milestones including those that are on the critical closure path.

4.3.5 Programmatic Risk with Stream Disposition Data and Science and Technology Development

Each disposition stream has an associated programmatic risk score. Every stream must be scored with respect to three programmatic risk categories -- scope, technology, and inter-site dependencies. The scoring is based on a 1-5 scale where five is high risk. These programmatic risk scores help identify areas that require management attention -- areas that could result in significant cost growth or schedule delays. Each disposition facility may also be scored (1-5) for any facility and/or equipment limitations that may be barriers to stream disposition (see Attachment H for programmatic risk definitions). Field Managers must also identify science and technology needs for each stream (provided that a need exists for the stream). The technology needs, chosen from a valid list that each Operations/Field Office prepares annually, links stream disposition data (SDD) to science and technology development through technological risk scores.

4.3.6 Programmatic Risk with Critical Closure Path Milestones and Science and Technology Development

Similar to disposition streams, each critical closure path milestone (event or activity) is associated with a programmatic risk score (provided that a risk exists for the milestone). The programmatic risk categories and scale are the same for critical closure path milestones as they are for disposition streams. For those critical closure milestones, Project Managers identify science and technology needs from the valid list that each Operations/Field Office has previously prepared. Thus, the science and technology needs are also linked to the critical closure path.

4.3.7 Science and Technology Development and Projects

As described elsewhere in this section, there is connectivity between the waste stream data in the SDD, the critical closure path data, and the relevant PBSs. While these relationships are important for overall data quality, they are particularly important in terms of validating the FY 1999 site science and technology needs and opportunity statements, and prioritizing and measuring the value of the Focus Area Work Packages. The ties are made by (1) linking the waste stream data from the SDD to the PBSs; (2) linking the critical closure path milestones to the PBSs; and (3) adding the relevant Focus Area Work Packages to the SDD and to the critical closure path milestones. This third requirement is in addition to providing the relevant science and technology needs/opportunities for the streams and critical activity descriptions. At the PBS level, aggregate potential cost savings for each technology can be estimated leading to an overall potential benefit to the EM program from the deployment of new technologies. The Office of Science and Technology uses this information in its prioritization efforts and deployment strategies as discussed in Chapter 9. Exhibit 4-1 (on the next page) depicts the relationship between the critical closure path, SDD, and technology deployment.

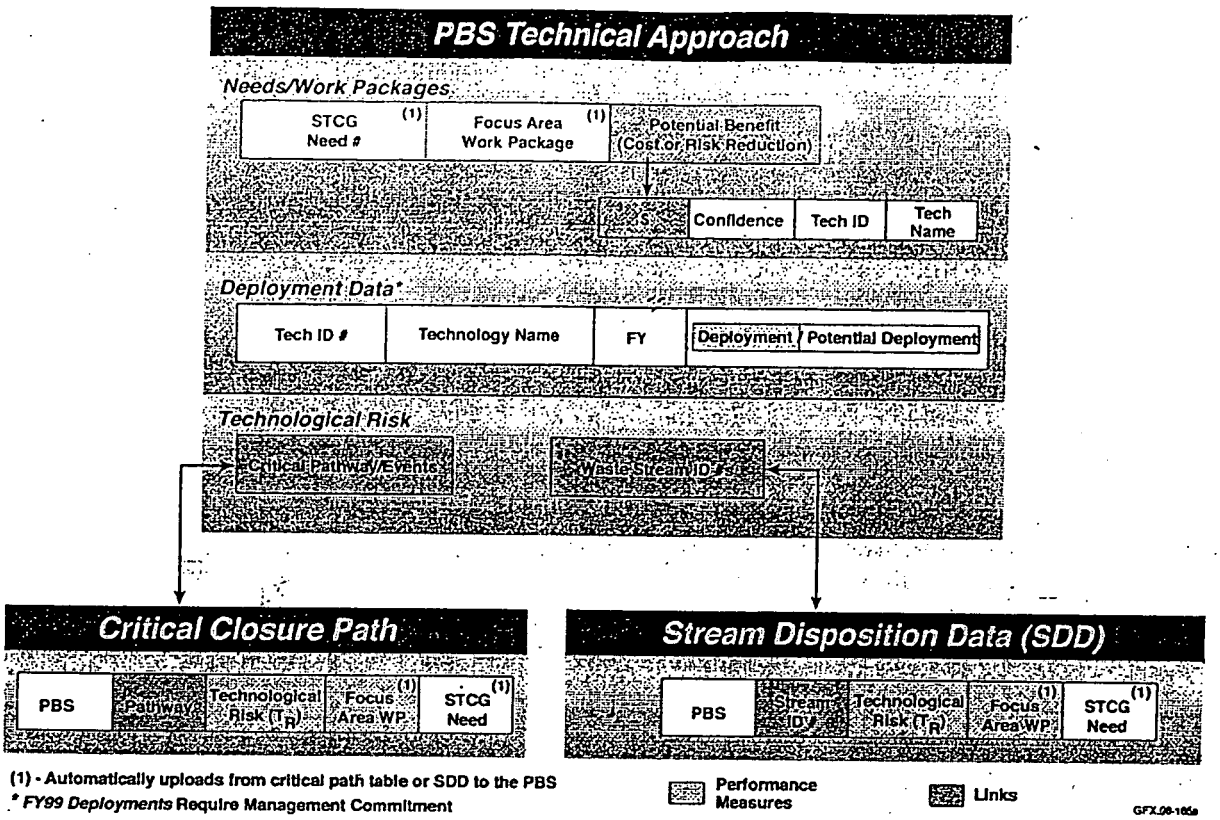


Exhibit 4-1: Science and Technology Development

Chapter 5 National Planning Assumptions

Operations/Field Office *Paths to Closure* submissions and the data submitted to Headquarters should be based upon the following national planning assumptions:

- **Compliance** - The Department places a high priority on compliance with environmental laws, regulations, agreements, standards, nuclear safety rules, and other applicable requirements. Site *Paths to Closure* reports must reflect and explicitly state this position. In completing PBSs, Operations/Field Offices must identify regulatory drivers for each EM project. Also, PBSs must include all significant enforceable agreement milestones and DNFSB milestones. As part of the FY 2001 formulation process, each Operations/Field Office must tie FY 2001 BA to compliance drivers in its IPL.

- **Public, Worker, and Environmental Risk**- EM's policies include ensuring the safety and health of workers and reducing risks to the public and the environment. Accordingly, site baselines and *Paths to Closure* documents should be developed consistent with the statement "do work safely or don't do it." Hazard management is an integral part of setting priorities, sequencing project work, measuring progress, and demonstrating that EM is managing hazards. Initiatives in Site *Paths to Closure* should place priorities on projects that reduce risks.

- **Funding Constraints/Budget Targets** – Operations/Field Offices should use the $5.75 billion planning levels provided in the October 20, 1997 guidance package when developing this year's life-cycle cost estimates. Baselines should reflect compliance needs as described in the first bullet point above; however, given budget constraints, Operations/Field Offices should avoid submitting baselines with unrealistic funding levels relative to recent historical experience.

- **EM assumes a site is "complete" when:**
  - Deactivation and decommissioning of all facilities currently in the EM program have been completed, excluding any long-term surveillance and monitoring (LTS&M),
  - All releases to the environment have been cleaned up in accordance with agreed-upon cleanup standards,
  - Groundwater contamination has been contained, or long-term treatment or monitoring is in place,
  - Nuclear material and spent fuel have been stabilized and/or placed in safe long-term storage, and
  - "Legacy" waste (i.e., waste produced by past nuclear weapons production activities, with the exception of high-level waste) has been disposed of in an approved manner.

  This definition does not imply that EM or DOE is leaving the site when the defined criteria are met. Nor does this definition preclude future uses for sites. Site *Paths to Closure* and associated PBSs should include appropriate EM planning assumptions and cost estimates for LTS&M (see next bullet point), groundwater treatment, and long-term storage/disposal activities at sites when those activities extend beyond the EM completion date.

- **Stewardship and Long-term Surveillance and Monitoring (LTS&M)** – Each site needs to be able to delineate between active cleanup costs and stewardship costs. For projects with stewardship responsibilities, sites should provide a life-cycle cost estimate through completion of site cleanup activities, as described above, and an annual estimate of LTS&M costs beyond project

completion. (See Section 7.3 for details.) This approach is different from last year's approach because it does not assume a life-cycle defined by a fixed end date (i.e., 2070).

- **End States** - Site *Paths to Closure* and associated data should be based on the best available end state (or end point) assumptions for each geographic site. However, decisions about end states and cleanup approaches to achieve those end states will ultimately be made in accordance with the requirements of CERCLA, RCRA, and other applicable statutes and may differ from the assumptions described in this document. At sites where significant differences could exist between the planning end state and the ultimate end state, Headquarters may request an order of magnitude estimate of the costs to reach a range of alternate end states. Of particular interest is the estimated cost to deactivate and decommission the gaseous diffusion plants at Portsmouth and Paducah, and the estimated costs to decommission the major facilities (e.g., the canyons) at Savannah River.

- **Program Direction** - Headquarters will report costs associated with Program Direction in a separate PBS. Although sites may track Program Direction costs in their project control systems, sites should not develop a PBS for Program Direction.

- **Privatization** - For this update, Operations/Field Offices should not report BA above their targets for any new privatization projects. BA for **approved, pre-existing** privatization projects must be included in each Operations/Field Office BA submittal and is permitted to exceed the target funding level in the near term. Baseline cost estimates for privatization projects should reflect outlays. Outlays for existing privatization projects must be included in Operations/Field Office baselines and consequently in a PBS.

Privatization Projects

For privatization projects, baseline estimated cost should reflect the estimated outlay profile for the project.

- **Baseline Costs/Escalation** - Baseline costs are found in two places: at the project level and at the SSL by category (e.g., landlord or remediation). Baseline costs should be reported in current (i.e. escalated) dollars. The escalation rate, as specified by OMB, will be provided under separate cover. The PBS will automatically calculate baseline costs in *constant* 1999 dollars.

- **Facilities** - The Site *Paths to Closure* submittal and its supporting PBSs should include only facilities currently in the EM program. This facility estimate should include all active facilities presently in EM's inventory. Until FY 2002, the EM program assumes that it will maintain a stable scope of facilities and will not require revisions to accommodate additional facilities transferred from other programs. Starting in FY 2002, transfers of excess facilities into the EM program will become a possibility.

  Each Operations/Field Office must provide an order of magnitude estimate of the potential financial liability posed by the future transfer of additional excess facilities (i.e., those not in the baseline). This estimate should include all facilities not in the EM inventory that are currently excess or projected to be excess as of the date of the data submittal. Again, this estimate should not be part of a PBS; rather, it will be provided separately in the SSL and represents additional costs above the baseline estimates.

- **Enhanced Performance** - Baselines should not include enhanced performance assumptions that the site has not yet found a way to achieve.

- **Non-EM Newly Generated Waste and Associated Costs** - It is EM's goal to transfer financial responsibility for newly generated wastes to the generating program as soon as possible. For data analysis purposes, EM will assume all responsibility has been transferred by 2001. For Albuquerque, Headquarters assumes that transfer of newly generated waste activities will be complete by FY 1999. If these costs have been included in a site baseline, the site must identify those costs in the PBS. Once responsibility has been transferred, the target level of funding for that project is no longer available for EM to request, effectively reducing the target. This reduction in funding target occurs because EM assumes that as financial responsibility for newly generated waste transfers to generator programs, corresponding EM budget target funding also transfer. Regardless of the transfer strategy, *Paths to Closure* will not include non-EM newly generated waste management costs associated with operating DOE facilities in the life-cycle completion estimate. The waste management costs associated with newly-generated non-EM waste must be separated from costs associated with legacy waste and waste generated as part of the cleanup program in the PBS. EM will disclose the newly-generated non-EM waste management costs.

  Program offices (e.g., Defense Programs, Environmental Management) have agreed to provide waste management data, including waste volume data, to meet external reporting requirements. To implement this agreement, each Operations/Field Office must provide disposition data for all years of "DOE waste management" operations, and where applicable, the date when financial responsibility for newly generated waste transfers to another program. Information on DOE waste management functions are needed to support a variety of DOE complex-wide capacity and configuration analyses. EM-specific analyses, performance measures, management commitments, etc., will rely on the re-engineering transfer date to truncate the DOE life-cycle schedules and volumetric data and develop EM life-cycle schedules and data, as appropriate.

- **Other non-EM Costs in the Baseline** - Operations/Field Offices should explicitly identify in each PBS any other estimated costs in their baselines that they expect another entity to pay (e.g., other DOE program office, state, private corporation).

- Stream- Definition Rules for PBSs-
  - The October 1997 guidance defined "streams" as "**a group of materials, media, or wastes having similar origins, management requirements [same disposition path], or barriers to disposition**".

    For example, a site might designate one stream on a Baseline Disposition Map of various types of acidic waste in inventory that must be neutralized in an on-site treatment facility prior to any other management step. The neutralized sludge resulting from that process would be a new stream with different characteristics and management requirements. It must go through a stabilization process before it can be disposed. The stabilized neutralized sludge resulting from that process is another new stream, now ready for disposal. In this example, the site dispositions three separate streams (acidic waste, secondary waste sludge resulting from treatment, and stabilized, disposal-ready sludge) with different management requirements into three separate processes (neutralization, stabilization, and disposal). Each stream is depicted separately on a Baseline Disposition Map and represents a unit of work scope to be completed sometime during the life of an EM project.

  - To facilitate the continuing integration and alignment of project scope and cost, this guidance further defines streams as being stored or dispositioned by only one EM

project (i.e., PBS) in a given year. That is, Project Managers may not associate two or more projects with a given stream in a single year. One PBS, however, may have more than one storage or disposition stream.

As in the above example, the Operations/Field Office might manage the acidic waste stream in inventory (stored) by PBS A and the acidic waste neutralization process by PBS B. However, no other project should have shared responsibility (with PBS A) for storing the acidic waste or shared responsibility (with PBS B) for seeing that the acidic waste is neutralized. Thus, no more than one project is associated with storage or disposition of a waste stream in the same year. Operations/Field Offices can manage any number of streams under a given project. (PBS A could be responsible for managing all aspects of all three streams from storage through neutralization, stabilization, and disposal.)

- In the past, Operations/Field Offices have associated some streams with more than one PBS for storage or disposition in a given year. This situation made responsibility and accountability for storage or disposition ambiguous and complicated PBS-level summaries of performance measures and costs. **Program Managers must split the few streams affected into two or more streams so that only one EM project is responsible for storage or disposition in a given year.** If, as in the above example, the manager stored the acidic waste stream in a large tank system managed by PBS A, but also in 5-gallon cans in a laboratory managed by PBS C, the acidic stream should be split into two separate streams (containerized acidic waste and acidic tank waste) that have unique management (storage) requirements, one requirement managed by PBS A and one requirement managed by PBS C.

- Multiple projects frequently generate one stream. Although EM Headquarters is not requiring generation PBSs to be identified because there may be multiple sources, some Operations/Field Offices have expressed a desire to identify generation PBSs. Operations/Field Offices have the option to identify generation PBSs. Operations/Field Offices should determine the "responsible" project based on direct operational responsibility for storage or disposition. Note that the project expends funds managing the waste but does not necessarily provide the funding.

- **Waste/Materials Disposition** - Baseline data must be consistent with formal Departmental decisions, stakeholder and Tribal Nation agreements and permits relating to approved, authorized, and/or permitted treatment and disposal sites/facilities; quantities that the Department has formally agreed to move off site; and approved generator lists at receiving sites. If for any reason the baseline disposition of a stream (or alternatives being negotiated) cannot be effectively aligned with formal decisions or agreements, the disposition for that stream should be designated as "to be determined" or "TBD". TBDs related to Records of Decision for treatment and disposal of MLLW and LLW must remain TBDs until formal decisions are announced in 1999.

- **Defining "TBD" in SDD** - Project Managers can reflect uncertainty regarding stream disposition as a to be determined (TBD) in four disposition data elements: disposition activity, site, facility, and/or technology. EM will collect information for each TBD stream to specify the reason(s) for its TBD status (see below), but they generally relate to the programmatic risk categories and the degree of uncertainty associated with inter-site dependencies, work scope definition (as result of insufficient waste or media characterization), lack of appropriate technology or facility/equipment limitations. As stated above, TBDs related to Departmental decision making processes (NEPA

RODs) and negotiations with receiving sites and their stakeholders, regulators, and Tribal Nations are of critical importance.

EM will provide a pick list of possible reasons why a stream may have TBD status. Operations/Field Offices have the option of adding to this list as appropriate to describe their particular situation. For example the pick list would include: *No disposition policy; No facility identified; Inadequate funding; Contracts not in place; Waste not characterized sufficiently; Technology not identified; ROD not issued (CERCLA or NEPA).*

- **Waste Isolation Pilot Plant (WIPP)** - When preparing life-cycle planning data, Operations/Field Offices should assume that WIPP will open in January FY 1999 to accept non-mixed transuranic waste. Operations/Field Offices should also assume that WIPP will begin to accept mixed transuranic waste in late calendar year 1999. WIPP is not licensed to accept non-Defense transuranic waste. If your Operations/Field Office intends to ship waste to WIPP, there must be a discussion with the Carlsbad Area Office (CAO) to ensure that the shipping and receiving volumes are scheduled similarly. Furthermore, sites should work with CAO to make sure they will comply with the draft RCRA Part B Permit characterization and quality assurance requirements.

- **Involvement of Tribal Nations, State and Local Government Officials, Regulators, and Stakeholders** - Consistent with the Department's Public Participation Policy (DOE Policy 1210.0) and EM's Public Participation Policy of May 1, 1995, Tribal Nations, state and local government officials, regulators, and stakeholders should be afforded ample opportunities for substantive involvement in the phased development of each Operations/Field Office's FY 2001 budget and life-cycle planning submittal. Accordingly, sites should engage Tribal Nations, state and local government officials, regulators, and stakeholders throughout the development of life-cycle data and the FY 2001 budget formulation processes. In addition, Tribal Nations, state and local government officials, regulators, and stakeholders should be afforded the opportunity to participate in the development of the FY 1999 site *Paths to Closure* report, including the development of site risk profiles and integration proposals.

This page intentionally left blank.

CHAPTER 6 THE FY 2001 BUDGET FORMULATION PROCESS

In order to provide timely input into the Department's FY 2001 budget formulation process, EM is requesting that each Operations/Field Office submit the following deliverables, based on the Office of Management and Budget (OMB) targets (which will be provided as soon as they become available):

- An FY 2001 Integrated Priority List (IPL);
- FY 2001 Budget Authority (BA) and performance measures data;
- Ancillary requirements (i.e., Re-Engineering Waste Management; and Non-Federal Security Investigations, and Department of Energy Field Budget Call Exhibits). **Input is due by April 15, 1999**. EM will collect this information as part of the overall Spring Update through the Limited Updating, Viewing, and Reporting Tool on April 15th.

6.1 Budget Targets

OMB is in the process of developing EM's FY 2000 funding and outyear targets. Funding levels for the FY 2000 Congressional Budget Request and outyear targets for FY 2001 and beyond will be forwarded to you as soon as they become available. However, all targets will be embargoed until early February 1999 when the President releases the FY 2000 budget request to Congress. As soon as these funding levels are received, two tables showing budget targets will be forwarded for your use in developing the FY 2001 budget materials. The first table will show EM's FY 2000 Congressional Budget Request as well as outyear targets for FY 2001 through FY 2006. These are the targets that will accompany the President's FY 2000 budget request. A second table will show the FY 2001 target level along with an 85% "below-target" level for FY 2001 from which our impact analyses will begin. These targets should be considered for budget-building purposes only at this time.

All Operations/Field Offices are asked to review their FY 1999 funding allocation letters which were sent by Acting Assistant Secretary James M. Owendoff on November 20, 1998. As part of the FY 2001 program, each Operations/Field Office is responsible for funding requirements identified in the attachment to that letter, including Congressional and Departmental Priorities. EM is responsible for monitoring both site baseline and budget information and how they relate to one another over time. Therefore, the portrayal of site baselines in PBSs each year must be consistent with (but not necessarily identical to) Congressional Budget Requests. If an Operations/Field Office is aware of additional requirements which have become known since transmittal of the November 20, 1998 letters or if additional requirements become known before the submittal date of April 15, 1999, those requirements should be incorporated in the FY 2001 program as well.

As a reminder, all budget materials for Program Direction, Science and Technology, and the National Programs will be prepared by Headquarters and that funding will not be included in the Operations/Field Office targets. However, the Centers for Excellence are to be included as part of the field submittals and that funding will be included in the targets (except for the Center for Risk Excellence which will be included in the Science and Technology target).

6.2 Integrated Priority List

Each Operations/Field Office is required to provide one FY 2001 IPL. This "optimal case" IPL will reflect the trade-offs each Operations/Field Office deems appropriate to present a balanced program.

It is recognized that each Operations/Field Office has its own priority-setting process or system in place. Some site priority-setting processes may be quantitative in nature while others may be qualitative. EM Headquarters does not intend to impose a standardized prioritization system, nor will it compare the prioritization system results from site to site. It is recognized that each process or system was designed with input from regulators, local stakeholders, and Tribal Nations. However, Operations/Field Offices should also consider the following EM principles in developing their priority lists.

- Eliminate the most urgent risks.
- Maintain compliance.
- Reduce mortgage and support costs to free up funds for further risk reduction.
- Protect worker health and safety.
- Reduce the generation of wastes
- Create a collaborative relationship between DOE, regulators, stakeholders, and Tribal Nations.
- Focus science and technology development on filling technology gaps and cost/risk reduction.
- Integrate waste treatment and disposal across sites.

The process used for project prioritization and sequencing to maintain project and end-state integrity, while ensuring the safety of site workers and the public, is particularly significant in cases relating to budget constraints and changing project scope and schedules. IPL data will represent the Operations/Field Office's current prioritization of EM projects and will help to make the tradeoffs between different strategic approaches more explicit. Stakeholders should participate at the site level in how work is prioritized.

Embargoed Funding Targets

Funding levels for the FY 2000 Congressional Budget Request and outyear targets for FY 2001 and beyond will be forwarded as soon as they become available. However, all targets will be embargoed until early February 1999 when the President releases the FY 2000 budget request to Congress. While the specific funding amounts may not be discussed with stakeholders, this does not preclude general discussions of a site's program and priorities. Operations/Field Offices are encouraged to undertake these discussions as early as possible in the process, with more specific funding discussions occurring after the release of the FY 2000 Congressional Request in February 1999. Please note, Operations/Field Offices should not use outyear BA targets to develop outyear baseline costs.

Building the IPL

The IPL should outline, by sub-PBS level of detail, the entire scope of work that the site would be able to accomplish in FY 2001 at various funding levels (below target, target, and planning). The planning level should reflect all requirements necessary to accomplish work scope described in the site baseline. The below target program must first be prioritized. The below target program is defined as the program that would be accomplished at a level 15% below the target. Next, prioritization would continue to the full target level. Please note that only traditional budget authority is to be prioritized (no Privatization funding).

Within the target level of funding, Operations/Field Offices are expected, to the extent possible, to include all compliance, risk, minimum safety, acceleration activities, as well as the operating (base program) portion of any privatization projects. If these activities cannot be accommodated within the target level, the Operations/Field Office should include these activities as an over-target item on the priority lists. All over-target items must be prioritized and included on the IPL in the same manner as the within target items. The IPL should go up to a BA level necessary to meet full baseline needs.

Categorization of PBSs

All sub-PBS entries must be categorized in terms of Compliance Driver as well as Peer Review Work Classification Definitions (see description of categories below). The compliance drivers are the same categories that were used to develop the FY 2000 budget. The Peer Review Categories are to be added for FY 2001, using the FY 2000 Peer Review experience as a guide for categorizing FY 2001. FY 2000 Peer Review data is available, by PBS and in summary, via the FTP server used for budget information [Userid: embudget; Password: 1budgetpw; Note that both the userid and the password are case sensitive].

As in past years, for each element in the IPL, the BA associated with the element must be allocated into the 10 driver categories found in Exhibit 6-1. In most cases, more than one programmatic driver category will apply to a single IPL element. In the case where several programmatic drivers apply to a part of an IPL element and there is no way to discern which programmatic driver applies to which part (i.e., they are overlapping to the extent that they cannot be separated), the Project Manager should assign the BA to the programmatic driver category ranking the highest from Exhibit 6-1. If there is another part of the same IPL element for which a specific driver can be separately identified, funding for that driver should be included in the column for that specific driver in the same IPL element line.

At the same time, each element must be binned into **one and only one** Peer Review category as listed in Exhibit 6-2. Each element should be assigned to the category that best describes the activity. If necessary, Operations/Field Offices should consider splitting an IPL element to more accurately categorize the activity.

Exhibit 6-1: Programmatic Driver Categories

Category	Description of Driver
1	*Required by a compliance agreement.* This category includes activities required to meet enforceable milestones agreed to in cleanup and compliance agreements as well as program support/management activities that are directly required to meet such milestones.
2	*Required by a court order, settlement agreements, or consent decree.* This category includes activities taken to comply with consent decrees, settlement agreements, or court orders, as well as program support/management activities that directly support such activities.
3	*Required by federal environmental statute or regulation (includes permits).* This category includes activities required to comply with federal environmental statutes, regulations, and permits that are not already captured under categories 1, 2, 4, or 6. Federal environmental statutes include but are not limited to, the Atomic Energy Act, the Pollution Prevention Act, Clean air Act, Clean Water Act, Resource Conservation and Recovery Act, Safe Water Drinking Act, Comprehensive Environmental Policy Act. This category also includes program support/management activities that directly support compliance with these federal laws and regulations.
4	*Required by state or local statute or regulation (include permits).* This category includes activities necessary to comply with applicable state or local statues, regulations, existing permits, draft permits, or proposed agreements that are not already captured under compliance categories 1, 2, or 3. This category also includes program support/management activities that directly support compliance with these laws and regulations.
5	*Required to comply with commitments to the Defense Nuclear Facilities Safety Board.* This category includes activities necessary to comply with Departmental commitments to the DNFSB. This category also includes program support/management activities that directly support compliance with such commitments.
6	*Required by Department of Energy Order - Environment, Safety, and Health (Department of Energy ES&H).* This category includes activities required to meeting one or more internal Department of Energy ES&H requirements, that are not already captured by categories 1, 2, 3, 4, or 5. This category also includes Executive Orders and program support/management that directly support compliance with Department of Energy ES&H orders.
7	*Required by Department of Energy Order - Management and Other.* This category includes all actions taken in response to Department of Energy orders designed to implement best management practices. Program/management support activities (such as Department of Energy staff, support contractors, budget planning, and facility operation) are included in this category when the primary activity to be supported does not fall under categories 1, 2, 3, 4, 5, or 6 above.
8	*Required by Agreements in Principle or Agreements with Indian Nations.* This category includes activities that are not required by either categories 1, 2, 3, 4, 5, or 6 above, but are essential to meeting requirements of Agreements in Principle or agreements with Indian nations.
9	*Required to meet a proposed Compliance Agreement.* This category includes proposed or ongoing activities that are required by the projected provision of a proposed compliance agreements and are not already captured by categories 1, 2, 3, or 4.
10	*Other Essential Management Functions.* This category includes activities that are not required by either environmental law or internal S&H requirements, but are considered essential to effective site operations.

Exhibit 6-2: Peer Review Work Classification Definitions

Work Classification	Definition
A	*Minimum Safety*. Those surveillance, maintenance, and support activities required to control existing material, waste, and facilities in a safe, stable condition (e.g., maintain ventilation systems to prevent buildup of explosive gases). No remediation, stabilization or disposal will occur unless safety related. Activities which simply comply with regulatory requirements and agreements but are not necessary for safe operations will not be included.
B	*Essential Services*. The balance of activities required to maintain the facility without advancing the mission (e.g., security outside the site fence).
C	*Significant Safety Risks*. Work required to mitigate known risks (e.g., DNFSB 94-1) which pose a significant hazard to workers, public and/or the environment.
D	*Additional Environmental Requirements*. All other environmental activities (e.g., low risk environmental restoration) that have not been placed in any other of the Peer Review Work Classifications.
E	*Non-Proliferation*. Management and disposition of foreign spent nuclear fuel and special nuclear material (e.g., IAEA).
F	*Mortgage Reduction*. Investing in activities that will result in lower life cycle costs (e.g., accelerated processing to close out HLW tanks).
G	*Community Mandates*. Activities resulting from implementation of DOE policies. Examples include but are not limited to PILT, State Oversight, AIPs, HBCUs, Tribal Grants, cooperative agreements, emergency preparedness grants, and openness initiatives. Litigation and adjustments to under-funded pensions are also part of this classification.

For each sub-PBS activity on the IPL provide:

- Narrative impacts for elements at 85% (and above) of the target BA on compliance in FY 2001.
- Narrative impacts on outyear compliance milestones, program scope, schedule, and closure dates. Please be sure to explicitly identify the year in which the anticipated compliance impact is to occur. Also identify whether any issue arises because of the FY 2001 target or the outyear target or a combination. Impacts should include the benefits of funding the activity as well as the adverse impacts from a failure to fund the activity.

Please note that Site Summary Level Data must include Impact statements for the decrement and target levels of funding. These impact statements will provide the probability of funding levels affecting: 1) closure dates; and 2) cost increases greater than 5%.

6.3 FY 2001 Performance-based Budget

EM has established a budget structure that more closely aligns EM's goals of accelerating cleanup and project-based management. This structure is intended to improve EM's ability to track progress and costs and provide a more understandable reporting structure.

The FY 2001 budget narrative will be organized by Project Baseline Summary and will describe (1) the defined scope, schedule, and cost; (2) budget data; (3) performance data; and (4) compliance and safety and health information. Most of this information is derived from the PBS itself. This approach is in keeping with the intent and requirements of the Government Performance and Results Act (GPRA) and will also fulfill the Office of Management and Budget's (OMB) requirement for significantly more detailed and improved performance information in the FY 2001 budget request. The FY 2001 performance-based budget information will be used to justify EM's budget and will make a clear case for the value of the program within the context of measurable results that are clearly understandable to our stakeholders. Also, budget and performance information will be aggregated to the site level and total EM level and presented within a life-cycle context to demonstrate the results that will be accomplished for the resources requested.

Project Baseline Summary - Cross Funding
Consistent with the FY 2000 submission, PBSs will need to be structured so that each PBS:

- Contains funding for only ONE appropriation account (privatization projects should continue to be included as a separate appropriation account),
- Contains funding from only one program account (Closure, Site/Project Completion, Post 2006 Completion, Science and Technology, and Program Direction). In addition, no movement of PBSs between program accounts will be allowed at this time.
- Attachment D contains a valid PBS list and Attachment E discusses procedures to request project changes.

The budget structure continues to categorize projects according to the specific appropriations--Defense Facilities Closure Projects, Defense Environmental Restoration and Waste Management, Defense Environmental Management Privatization, Non-Defense Environmental Management, and the Uranium Enrichment Decontamination and Decommissioning Fund. EM's three budget program accounts reflect EM's near-term goals and closure dates: Site Closure, Site/Project Completion, and Post 2006 Completion.

To meet the Department's schedule for a Corporate Review Budget in June 1999, EM will collect Budget Authority (BA) and Performance Measures data from the Operations/Field Offices by PBS. The categories and subcategories of performance measure data are delineated in Attachment G. BA and Performance Measures data will be collected by PBS for the below target, target, and planning levels for FY 2001 (the planning level is the baseline).

The FY 1999 and FY 2000 BA and Performance Measures data will be seeded and "locked" at the PBS level based on the FY 2000 Congressional Budget Request.

Operations/Field Offices are requested to:

- Submit BA and Performance Measure data for FY 2001 budget formulation, in the Limited Updating, Viewing, and Reporting Tool, for each PBS at the below target, target, and over-target levels. BA data will need to be an estimated percent allocation to the cross-cut metric categories and subcategories listed in Attachment G.

- Reference and use the integrated set of performance measures definitions, B&R codes, and valid projects.

- Evaluate your performance-based budget information to:
  - Minimize, to the extent possible, instances where there is BA and no performance measure activity or a performance measure activity and no BA. While there may be valid reasons as to why there is BA and no measure for an activity (i.e., the measure may not capture all work scope; work is in progress and has not yet been completed; data is classified; or other reasons) or why there is a performance measure activity and no BA (i.e., uncosted carryover), these cases must be the exception.

  - Ensure the breakout of the performance measures data by program account (Site/Project Completion, Site Closure, or Post-2006 Completion) is consistent with the corresponding breakout of the BA by program account.

6.4 Ancillary Requirements

6.4.1 Re-engineering Waste Management

The Operations/Field Office should provide information regarding re-engineering waste management to the EM Office of Budget and the EM CIO. EM requests the following information be submitted by April 15, 1999, for all sites which may transfer budget target in FY 2001:

1. Site name.
2. Program dollar amounts and short descriptions of activities expected to transfer and the associated Project Baseline Summary (PBS).
3. Program Direction dollar amount expected to transfer broken out by salaries, travel, support services, and other related expenses.
4. Mission Program the transfer is going to.
5. Number of FTEs expected to transfer.
6. Waste management activities and associated dollar amounts which are expected to remain with the Waste Management Program (i.e. legacy waste, High Level, Transuranic).

Given that no transfers have been fully agreed to at this point in time, and may not be made by the due date above for this data, it is expected that this information will be provided as estimates and will be expected to change.

The point of contact for re-engineering waste management activities is Robert Campbell, (301) 903-7127.

6.4.2 Non-federal Security Investigations

Again this year, each Operations/Field Office must submit data for those sites funding non-Federal security investigations. Prior to FY 1999, the Office of Security Affairs was responsible for this funding. In FY 1999, the various Departmental organizations budgeted for this activity. A separate PBS and B&R code(s) for each applicable program account has been established to capture these costs. The funding for this activity will be included in the field target.

The following information is required for FY 1999, FY 2000, and FY 2001:

- Appropriation
- Number of new investigations
- Number of re-investigations

6.4.3 Departmental Field Budget Call

Sites must be prepared to submit on schedule all pertinent ancillary budget documentation requested by the Department of Energy Chief Financial Officer in the Field Budget Call. This information includes guidance on program direction, construction project data sheets, crosscutting materials, etc. Please note that environmental restoration activities do not require project data sheets.

6.5 Headquarters Analysis

The purpose of the Headquarters analysis, to be conducted between April 16 and mid-May 1999, is to review the IPLs, to verify that the field assessments of the performance measurement, technical, and cost data are adequate, and to establish a level of confidence in the information on which the proposals are based. The Headquarters review will also analyze the field proposals as a whole, based on a national perspective considering the impact on closure as discussed in *Paths to Closure*. This analysis will result in issues and recommendations for discussion at the budget hearings in mid-May. Headquarters will coordinate any changes in data resulting from their review with Headquarters Site Leads and Operations/Field Offices.

6.6 Corporate Forum Budget Review

A schedule for the entire FY 2001 budget cycle is described in Attachment A. It is currently envisioned that during May 1999, several days will be set aside for deliberations among EM senior management to discuss the FY 2001 budget. The Assistant Secretary for Environmental Management, all Deputy Assistant Secretaries, and Operations/Field Office Managers or their designees should be present at these hearings. Stakeholder representatives and representatives from other government agencies may also be in attendance.

At these hearings, each Operations/Field Office will be expected to present its proposed program and budget for FY 2001. The focus of the presentations should be on justifying the activities that make up the Operations/Field Office's below target program, activities that make up the target level, and the over-

target level. These presentations will give the field an opportunity to present the best case for their proposed program and convince the reviewers that their formal budget request represents the most efficient program possible.

This process takes as fundamental assumptions that the program presented by each Operations/Field Office will be consistent with the goals of *Paths to Closure*, discuss any impacts on closure and **must be consistent with the April 15th submission**.

This page intentionally left blank.

Chapter 7 Management Initiatives

This chapter discusses six EM management initiatives related to *Paths to Closure*: accelerated site completion targets, EM integration/planning, stewardship, annual baseline reconciliation, a pilot systems approach for enhanced baseline development, and science and technology roadmapping.

7.1 Accelerated Site EM Mission Completion Targets

The June 1998 *Paths to Closure* report deferred establishment of accelerated site EM mission completion targets until a more credible approach is developed, where goals would be based on the likelihood of achieving technology deployment, inter-site integration, and other enhanced performance initiatives that the EM program has identified. Until that approach is finalized, Headquarters is encouraging sites to work towards accomplishing the goal of completing EM mission work scope more efficiently, by optimizing the cost and schedule at each site.

7.2 EM Integration/Planning

Integration requires corporate thinking on the part of Headquarters, Operations/Field Office, and site managers, looking at broader interests than a single program or site, and focusing on those needs which achieve the cleanup vision in an optimized fashion. In September 1998, DOE field managers and the Assistant Secretary for Environmental Management signed a "*Working Charter for Environmental Management Program Integration.*" The charter describes the structure and process to conduct program integration, using 12 Program Area Integration Teams to span the entire scope of the EM program. Each Program Area Integration Team will identify, analyze, and recommend technical opportunities which reduce costs, significantly accelerate cleanup schedules, and further the goals of EM's accelerated cleanup vision.

Opportunities are derived as alternatives to baseline plans or activities that fill gaps or fix disconnects in projects. Any organization can identify new opportunities to a Program Area Integration Team. A systems approach to identify, plan, and evaluate integration opportunities results in recommendations to the Integration Executive Committee for rejection or implementation.

The evaluation process provides continuous opportunity for Tribal Nation, regulator, and stakeholder involvement, as appropriate. The integration process requires that DOE's established decision processes, e.g., under NEPA, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Resource Conservation and Recovery Act (RCRA), are followed. If decisions are reached to implement integration opportunities, then Project Managers will follow established baseline change control procedures to incorporate opportunities into projects.

7.3 Stewardship

When cleanup is completed at many sites, some work will remain. The work after cleanup, often called "long-term stewardship", includes monitoring of residual contamination, and maintenance of closed landfills, capped sites, and entombed buildings/reactors. In many cases, these activities are required as part of the remedies selected (e.g., post-cleanup monitoring and five-year reviews). These stewardship activities encompass all actions required to maintain an adequate level of protection to human health and the environment posed by residual contamination. Many organizations, including state regulatory

officials, Tribal Nations, and the EM Advisory Board have urged the Department to increase its efforts to meeting its obligation to ensure that these stewardship tasks are carried out fully after completion of site cleanup activities. The Department is committed to meeting its long-term stewardship obligations, which become increasingly important as more sites are cleaned up.

One step towards demonstrating EM's intent to meet stewardship obligations and to improve management of this critical activity is to identify the nature, extent, and cost of current and expected stewardship scope. To this end, EM Headquarters is recommending, but not requiring, that, at each site where substantial cleanup work has been completed (including long-term facility stabilization and landfill closure), Operations/Field Offices establish a PBS for long-term stewardship activities.[3] A small amount of required information is described at the end of this section.

While managers at some sites may deem it appropriate to establish a PBS for long-term stewardship now, other sites may wish to wait until more cleanup is completed, information is available, or more clear and consistent guidance is developed. A separate working group on long-term stewardship will be continuing to consider this, among other issues, through regular conference calls and a meeting in Salt Lake City in February 1999. EM understands that the experience at many sites is that the personnel most knowledgeable about the information required for a stewardship PBS may not be available when the PBS is funded. Hence, it may be preferable to establish a PBS before it is funded so that the information may be included while the expert personnel and required information are still readily available.

Although the details of how information on long-term stewardship should be collected have not been resolved, it is clear that more information on long-term stewardship is needed. First and foremost, there is growing pressure from state and federal regulatory agencies (voiced nationally by the State and Tribal Governmental Working Group and the EM Advisory board as well as the National Association of Attorney's General) to articulate and address our long-term stewardship obligations. Second, Congress is increasingly seeking details of interim cleanup progress rather than waiting until cleanup at an entire geographic site is completed. Third, EM needs information to evaluate management options for ensuring that the long-term stewardship obligations are being met in a cost-effective manner. Finally, the Department recently settled a lawsuit with a variety of non-governmental organizations. One aspect of the settlement is a requirement that DOE prepare a study on long-tem stewardship, with full scoping and public participation. This study will require additional information on long-term stewardship in more detail than on the geographic site level. Collecting this information may require a separate data call, if it is not provided adequately as part of data collected from this guidance.

The following guidance is for site managers who chose to develop a separate PBS for long-term stewardship. The type of information to be included in a stewardship PBS is generally expected to be the information necessary to assess the level of stewardship activity, and describe it in a comprehensive manner. Much of the information is expected to be simply transferred from PBSs for active remediation or waste management. The information would likely include:

- Description of residual contamination;
- Description of the controls being used to contain the residual contamination; and

[3]This recommendation differs from the draft guidance, which directed that each Operations/Field Office develop a PBS on long-term stewardship. The change reflects the comments received by a number of Operations/Field Offices indicating that a mandatory PBS for long-term stewardship was premature at this time, but that such a PBS might be appropriate later.

- Description of the "afforded" future land use after cleanup is completed (i.e., what is the land use that is possible, given the level of cleanup attained).

The "unit of activity" to be transferred to a new PBS should be determined based on the needs of the site management. A PBS for long-term stewardship will reflect cleanup work that is completed, and, thus, site manager should include as much completed cleanup as soon as possible. Stewardship should not be confused with ongoing remediation or waste management of operating facilities, and establishing a PBS for long-term stewardship will help separate this work from ongoing active cleanup. Moreover, establishing a PBS for stewardship should not necessarily wait until all of the cleanup associated with an entire PBS is completed. However, it would be unworkable to transfer each individual release site to a new PBS upon completion of cleanup. EM recommends that site managers establish a PBS for stewardship when a discrete and significant management unit within a PBS (e.g., watershed, valley, or geographic area) has been cleaned up.

Pending the development of a more detailed consensus on long-term stewardship, EM Headquarters requests Operations/Field Offices first to describe the end state and future use plans for each geographic site, second to place each geographic site into one of seven categories, and third to provide stewardship-related information for each geographic site specific to its appropriate category. Exhibit 7-1 presents the seven categories and the requested information for each.

Exhibit 7-1. Information Requirements for Geographic Site Stewardship Categories

No.	Stewardship Planning Category	Information Requested
1	The geographic site is completed and EM is actively funding long-term surveillance and monitoring (LTS&M) activities which are reflected in one or more PBSs.	Identify PBS(s) with LTS&M activities and describe the activities. Ensure SSL breakout of costs by category shows LTS&M costs.
2	The geographic site is completed and another (non-EM) entity is actively funding LTS&M activities, which are not reflected a PBS.	Identify the entity funding LTS&M activities.
3	The geographic site is completed and no LTS&M is required.	None.
4	The geographic site is not yet completed but EM has determined stewardship activities and costs, which are reflected in one or more PBSs.	Identify PBS(s) with LTS&M activities and describe the activities. Ensure SSL breakout of costs by category shows LTS&M costs.
5	The geographic site is not yet completed but EM has determined that stewardship activities and costs are the responsibility of another (non-EM) entity which are not reflected in a PBS.	Identify the entity funding LTS&M activities and when such activities are scheduled to begin.

No.	Stewardship Planning Category	Information Requested
6	The geographic site is not yet completed but EM has determined that stewardship activities and costs are the responsibility of another (non-EM) entity but the costs are reflected in one or more PBSs.	Identify the entity funding LTS&M activities, which PBS(s) include the activities and how much of each PBS cost is attributable to LTS&M.
7	The geographic site is not yet completed and stewardship activities are so far off and/or uncertain that the costs are not fully understood. No estimate is included in a PBS.	Estimate the annual potential costs (or range of costs) for stewardship activities starting at site completion. If such activities are not reasonably estimable, describe the required activities.

7.4 Annual Baseline Reconciliation

One important aspect of tracking EM's baseline from year to year will be a requirement to explain differences between the prior year's life-cycle cost and completion date estimates and the current year's life-cycle cost and completion date estimate. This year, sites will be required to explain changes in their baseline estimate relative to last year's *Paths to Closure* in three ways:

- At the project level, sites will need to explain why the life-cycle cost estimate changed in quantitative terms.
- At the project level, sites will need to explain why the project completion date changed in qualitative terms.
- At the SSL, sites will need to discuss changes to life-cycle costs, planning assumptions, completion dates, and scope since last year in a narrative format.

PBS Annual Baseline Reconciliation

For each PBS, EM will require sites to reconcile last year's life-cycle cost estimate with this year's using the worksheet found in Exhibit 7-2. Rows (2) through (5) adjust last year's estimate to FY 1999 dollars and remove 1997 and 1998 costs. The resultant amount in row (6) must be reconciled to this year's estimates using the categories found in rows (7) - (11). Rows (7), (8), and (9) should be used to account for reductions in the estimate due to scope deletions or efficiencies. Rows (10) and (11) should be used to reflect estimate increases due to new scope or cost growth. Sites should use existing site documentation (e.g., baseline change proposals) and best professional judgment to support the reconciliation between the estimates.

If a PBS did not exist last year, start with zeros through row (6). The estimate for the new PBS should be attributable to new scope (row (10)). For PBSs that existed last year but don't exist any more, row (7) should document any scope transfer or deletion so that row (12) equals zero.

For each PBS with a changed project completion date, EM will require sites to explain qualitatively why the completion date changed using Exhibit 7-3. Sites should summarize the accelerating factors that contribute to the project's completion date moving up from the 1998 baseline and/or the delaying factors that contribute to the project's completion date moving back from the 1998 baseline.

Exhibit 7-2: PBS Annual Baseline Life-cycle Cost Reconciliation Worksheet

Category	Operation	Dollars	Comments
(1) Last Year's 1997-2070 Estimate (1998 dollars)		$_____	from last year's PBS. If the PBS did not exist last year, this will be zero.
(2) 1997 Cost (1998 dollars)	less	-$_____	Actuals as entered on the PBS.
(3) 1998 Cost (actual dollars)	less	-$_____	Actuals as entered on the PBS.
(4) 1999-2070 Estimate (1998 dollars)		$_____	
(5) Inflation Adjustment (1998 dollars to 1999 dollars) @ 2.7%	(4) x 1.027	$_____	
(6) Amount to Reconcile to New Estimate		$_____	
(7) Scope Deletions _____ _____ _____	less	-$_____	Either transferred to another PBS or eliminated completely.
(8) Efficiencies _____ _____ _____ _____	less	-$_____	Represents enhanced performance from acceleration, reduced overhead, or other factors, except for science and technology (which should be included in Line 9 below).
(9) Application of Science and Technology _____ _____	less	-$_____	Savings associated with the application of science and new technologies.
(10) New Scope _____ _____ _____	plus	+$_____	Additions from other PBSs or new scope.
(11) Cost Growth _____ _____ _____	plus	+$_____	Same scope now estimated to cost more. Includes increased costs due to schedule delays.
(12) SUBTOTAL		$_____	
(13) Other Adjustments _____ _____ _____	+/-	+/-$_____	Should be zero but is offered as a final row to make last year's and this year's estimate reconcile.
(14) This Year's 1999-2070 Estimate (1999 Dollars)		$_____	From this year's PBS.

Exhibit 7-3: PBS Annual Baseline Completion Date Reconciliation Worksheet

Year of Submission	PBS Completion Date	Factors
1998		
1999		Accelerating Factors: _____ _____ _____ Delaying Factors: _____ _____ _____

SSL Annual Baseline Reconciliation

EM requests each Operations/Field Office to provide a narrative discussion in their SSL(s) and in their Site *Paths to Closure* report of significant changes from last year to this year. The discussion should focus on the following:

- Changes in the critical closure path for the site(s);
- Changes in the life-cycle cost for completion of EM work scope; and
- How performance in FY 1998 affected the overall cost and schedule for completion of EM work scope.

7.5 Pilot Systems Approach for Enhanced Baseline Development

The Idaho Operations Office, through the Idaho National Environmental and Engineering Laboratory, is developing a pilot systems engineering methodology to identify opportunities for technological and efficiency improvements in project baselines. The process will focus on the identification of opportunities in areas such as:

- Integration (inter- and intra-site);
- Technology deployment and process change; and,
- Application of lessons learned.

As a result of implementing this approach, Idaho will be able to develop a more mature reference baseline, from which technological and efficiency opportunities can be identified based on a sound methodology. In turn, the opportunities identified will provide a sound basis for optimizing the cost and schedule of the work at the site.

As a product of the pilot, Idaho will develop a systems engineering model to be transferred, with modifications, across the EM program. Idaho will develop a more detailed explanation of the approach as the pilot proceeds and will include it as a work product. For other sites interested in pursuing this initiative, more information is available by contacting Gene Schmitt directly.

When identifying individual inter-site integration opportunities, information should be consistent with those identified through the ongoing integration initiative. In addition, technology deployment information should be consistent with the technology deployment information that is being requested as part of the life-cycle planning update.

7.6 Science and Technology Roadmapping

As described in the *EM Research and Development Program Plan*, November 1998, EM will use roadmapping to help develop and optimize its science and technology investments. There are three levels of science and technology roadmapping within EM. The EM Research and Development Program Plan is the top level roadmap and describes a five year (FY99-03), $1.2 billion investment strategy. The strategy includes a summary of the problems and end states, and the approach we are using to both determine and maximize the impact of the investments. The strategy also provides a summary of the investment portfolio. In addition, the EM Research and Development Program Plan outlines the underlying levels of roadmaps: multi-year program plans and project level roadmaps.

Multi-year program plans are the next tier below the Program Plan and are EM's primary science and technology roadmaps; they contain the problem sets, the planned technical investments, the performance measures, and the projected outcomes associated with those investments. They are used for planning purposes by both PBS managers and Focus Area managers and provide the basis for EM's science and technology budget requests. Multi-year program plans will crosswalk EM's science and technology investments to PBSs, science and technology needs and opportunities, disposition maps, and critical closure paths.

The third tier of roadmaps are project-level science and technology roadmaps. EM will use project-level science and technology roadmaps for a small number of high impact, high risk activities where investments in science and technology can have a significant payoff. These roadmaps will include a set of logical, time-sequenced steps showing project activities and decision points along with the complete set of science and technology activities needed to address technology gaps and reduce the cost, schedule, and technology risk associated with cleanup. EM will use data supplied in response to *Paths to Closure* guidance to identify those activities that represent the best candidates for project-level roadmapping.

This page intentionally left blank.

CHAPTER 8 DATA

The data requested as part of this guidance reflects the agreements made during the CIO data requirements review. All of the data discussed in this section refers (by requirement number) to a specific data requirement number that is identified in the *IPABS-IS Data Requirements* report.

As Operations/Field Offices develop their information, they should note the overall and site-specific data quality observations and issues identified last year that are included in Attachment I.

The data requirements can be broadly categorized into five levels:

- Project
- Stream Disposition Data
- Geographic Site
- Site Summary
- Operations/Field Office

A schematic breakout of these five levels and various elements required within each level which EM Headquarters will collect in the Spring, are summarized in Exhibit 8-1 (on the next page) and discussed below. The four digit numbers included with data requirement discussions are data requirement reference numbers from the *IPABS-IS Data Requirements* report.

8.1 Project Level Data

Project data collected through the PBSs are the cornerstone of EM's Corporate Database. PBSs reflect site baselines, which are the basis for *Paths to Closure,* integration, analysis, and communication of the scope of the EM program. In addition, PBSs contain most budget and performance measure information.

Project information consists of four component parts: general information, baseline, budget, and performance measures. **General project information** includes the project narratives, validation information, safety and health narratives, project risk information, and other basic project descriptors for each PBS. Science and Technology needs and linkages are also part of the general project information. **Baseline information**, including cost, scope, and schedule information required to complete the project, is another key component of the PBS. The **budget** component refers to the BA and B&R information for the three-year budgeting window (prior year, current budget year, and subsequent budget year). **Performance measures** are designed to track project performance.

8.1.1 General Project Information

General PBS Information (1068):
The general project information component of the PBS data set includes general project description, regulatory drivers, and validation information for each PBS.

Project Baseline Narratives (1054):
EM collects these narratives annually and uses them to prepare several reports, including the Congressional budget and *Paths to Closure*. These narratives will address end states, project status, cost estimating methodology, purpose of project, definition of scope, and the project's technical approach.

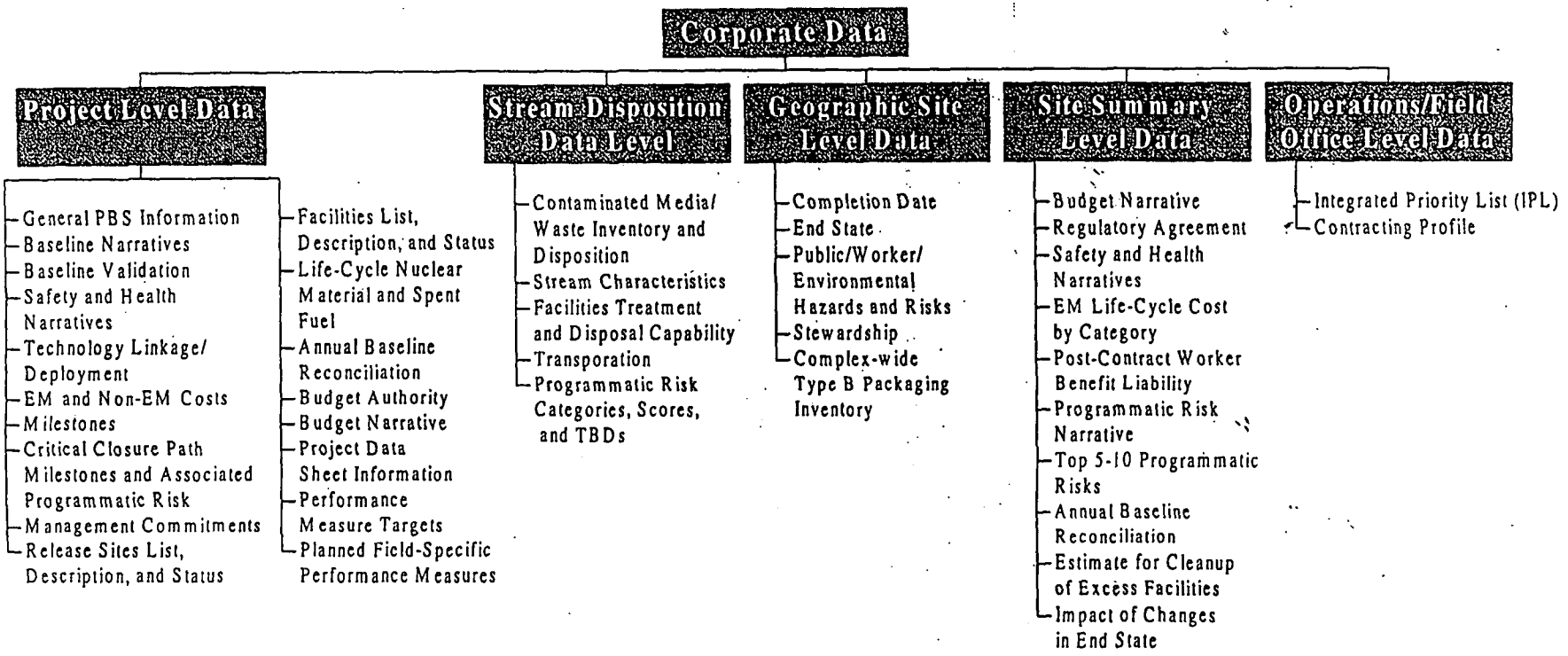


Exhibit 8-1: Data Requirements by Level

Project Baseline Validation Information (1049):
Operations/Field Offices must independently validate baselines in order to ensure that the scope, schedule, and cost estimates are defensible. Baseline validation is defined in the *IPABS Handbook* as the following: "A credible and independent validation of each site's baseline is an expectation of Congress, OMB, local stakeholders, Tribal Nations, and EM. Baseline validation is a one-time event . . . The Field will select the validation organizational team with the concurrence of the Headquarters Site Lead. Independent baseline validation will be conducted by a team or organization that is clearly independent of the business implications of the validation results . . . The outcomes of the validation must be discussed, negotiated, and then incorporated into the project baseline through the change control process." EM will collect information regarding validation status annually.

Safety and Health Narratives (1022, elements 2107 and 2110):
EM collects Safety and Health narratives annually. There are two PBS Safety and Health narratives: a hazards narrative, and a work performance narrative:

- The hazards narrative briefly describes the most serious hazards for each PBS. The definition of hazards for this data element exceeds worker safety to include the hazards to the safety of the public and environment.

- The work performance narrative describes the activities and checkpoints needed to ensure that work is done in a safe manner consistent with EM's policy of *"Do work safely or don't do it!"*

Technology Linkage Information (1020, 1088):
This technical approach section identifies the project's science and technology needs, the related science and technology work scope (Focus Area Work Package), and potential benefits of addressing the need (cost savings estimate and confidence level). The intent of this section is to obtain user buy-in to the needs, work scope, and potential benefits if the work scope adequately resolves the need. This section replaces Operations Office Data Summary (ODS) Part C, Science and Technology Tables O.9.2 and O.9.3 of last year's guidance and adds a requirement to include the Focus Area Work Package number, where known, which is addressing the need. The benefits portion of this section includes two options: risk reduction (programmatic risk) or cost savings. Operations/Field Offices should calculate cost savings, where possible, using the standard cost savings methodology identified in the Federal Energy Technology Center (FETC) Report: "Standard Life-Cycle Cost Savings Analysis Methodology for Deployment of Innovative Technologies" date October 30, 1998. EM will use the information provided in this technical approach section to formulate and prioritize the Office of Science and Technology budget.

Technology Deployment Data (1008, 1020):
This section identifies new or innovative technologies that the project will deploy or that the project is seriously considering for use. This section replaces ODS Part C, Table O.9.1. of last year's guidance. EM will roll up the information in this section to satisfy the "Technology Deployment" corporate performance measure at the Operations/Field Office level. EM has pre-seeded this section based on the January 1998 Field Office submittal, and amended by Office of Science and Technology Focus Areas. Operations/Field Offices may delete or add to any of the pre-seeded deployments. If no deployments were pre-seeded, as of January 1998, there was no information on new or innovative technology deployments planned as part of the project.

8.1.2 Project Baseline Information

EM and Non-EM Costs (1048, 1046):

Each Operations/Field Office will prepare a baseline for each project that it manages. These baselines will estimate EM costs and non-EM costs throughout the life cycle of each project in current (i.e. escalated) dollars. The Operations/Field Office should include the escalation factors with the cost baselines so that Headquarters can de-escalate the cost figures to constant year dollars. The escalation rate, in accordance with OMB guidance, will be provided under separate cover. EM will collect baseline costs for the life cycle of each project annually through 2010 and in five-year blocks from 2011 through project completion. Operations/Field Offices should include non-EM costs associated with a PBS in annual cost projections. EM is also asking for information about non-EM costs that are included in the baseline (if applicable). Examples of non-EM costs include non-EM newly generated waste management costs transferred back to the generator and costs that are covered by the state.

Milestone Information (1033):
EM will collect milestone data by project for both Execution Tracking and life-cycle planning. Operations/Field Offices are asked to provide planned milestones annually and updates to milestone status quarterly. Operations/Field Offices must record four dates for each milestone: original, baseline, forecast, and actual. EM will collect the date of the Enforceable Agreement for enforceable agreement milestones. Project milestone data demonstrate progress toward project completion and show whether a project is "on schedule". EM will track the following types of milestones in the Corporate Database:

- Enforceable Agreements
- DNFSB Commitments
- Management Commitments
- Major Decision Point (e.g., Environmental Impact Statements (EISs), RODs)
- Inter-site Implications
- Critical Decision (those tracked for line item projects, strategic systems, etc.)
- Critical Closure Path.

Critical Closure Path Milestones (1045):
The Operations/Field Office critical closure path is a streamlined schedule of high level activities, events, and/or decisions that warrant DOE management attention and must occur "on schedule" to achieve the site closure date. EM will store critical closure path activities and events as milestones (critical closure path activities require both a start and an end date) with programmatic risk attributes associated with them. For each critical closure milestone, the Operations/Field Office will identify the specific associated science and technology needs, and relevant Focus Area Work Package (if applicable). In addition, for each critical closure path milestone, EM will collect programmatic risk scores. Programmatic risk scores range from 1 (low) to 5 (high) and are broken into three categories (see Attachment H for programmatic risk definitions):

- Technology
- Work Scope Definition
- Inter-site Dependency

Management Commitment Information (1056):
EM will collect management commitment information as execution year performance metrics and execution year milestones and will track this information on the same schedule as performance measures and milestones. Operations/Field Offices will flag management commitment milestones on the milestone list.

Release Sites List, Description and Status (1090, 1031):
Operations/Field Offices should associate all release sites with a project. EM will collect release site list and description data annually. Operations/Field Offices will record each unique release site at each site with the classification of the present hazard and the class of the release site contaminated. EM maintains a baseline assessment completion date and overall completion date for each release site. Operations/Field Offices can group release sites into "natural groupings" if desired.

Facilities List, Description, and Status (1097, 1096):
The complete list of facilities should be a comprehensive list of all EM facilities; Operations/Field Offices should associate each facility with a project. EM will collect data on the facilities list and descriptions annually. The description of each facility will include a classification of the facility type in addition to a classification of the type of hazard present at the facility. EM maintains a baseline deactivation completion date (if applicable), assessment completion date, and decommissioning complete date for each facility. Operations/Field Offices can group facilities into "natural groupings" if desired.

Life-Cycle Nuclear Material (1041):
Operations/Field Offices will maintain the life-cycle annualized baseline profile for the stabilization of nuclear materials in the PBS. The profile will identify the quantity of material planned for various stabilization and disposition phases as of the end of each year through project completion. (Note: validation of the draft nuclear material disposition maps does not replace this data requirement.)

Project Annual Baseline Reconciliation Information (1026):
Annual life-cycle baseline cost and completion date reconciliation information will explain the differences between the prior year's baseline cost and completion date estimate and the current year's baseline cost and completion date information. The life-cycle cost reconciliation worksheet, Exhibit 7-2, depicts the cost information that EM will collect in the life-cycle planning update. The completion date reconciliation worksheet, Exhibit 7-3, provides a narrative field for the Operations/Field Office to explain accelerating/delaying factors in project completion dates.

8.1.3 Project Budget Information

Budget Authority (1001):
Budget information will include BA for the three-year budgeting window (prior, execution, and formulation years). For FY 2001 only, EM will collect BA information for each PBS at the target level and also at 85% of the target level. Each PBS does not have to equal 85%, but rather the overall total for all PBSs of the Operations/Field Office should sum to 85% of the total BA target level. EM collected BA for FY 1999 and FY 2000 in the Budget Data Template during the Fall and will seed this information in the database and web tool.

In addition, EM will collect BA for each metric category (as a cross-cut) by PBS. For FY 2001 only, Operations/Field Offices will report BA for each metric category and subcategory as a percent allocation

of the total BA target level for each PBS. EM will calculate the BA by category and subcategory by applying the percent allocation for the three-year budgeting window to the PBSs. EM collected BA by metric for FY 1999 and FY 2000 in the Budget Data Template during the Fall and will seed this information in the web tool.

The BA data by PBS are to be used for budget formulation purposes and will be updated twice a year. This crosscut information will be provided in the budget, but will not be subject to audit.

Budget Narrative (1003):
EM will use the budget narratives collected by PBS to support and develop budget documents. These narratives will discuss accomplishments for years prior to the budget year. A final narrative, to be consistent with *Paths to Closure,* will discuss planned PBS accomplishments for the life cycle. This narrative should be a summary of the purpose, scope, and technical approach narrative discussed in the Project Baseline Narrative (1054).

Project Data Sheet Information (1011):
Project Data Sheets display detailed information regarding line item construction projects as required to meet budget requirements. They include detailed cost information such as life-cycle project costs, total estimated cost, and total project cost. Project Data Sheets also include narratives on project purpose, scope, and technical approach; BA and obligations by fiscal year; schedule of project funding; contracting arrangements; and construction schedule history. Project Data Sheets will support the Congressional budget formulation process, Management Commitment Reports, the Performance Report and the DOE Strategic Plan. Operations/Field Offices will update this information three times a year with each budget phase (initial formulation submission, OMB Request, and Congressional Request).

8.1.4 Project Performance Measures

Performance Measure Targets for Performance-Based Budgeting (1008, 1056):
EM maintains PBS-level performance measures for the three-year budget window. For FY 2001 only, Operations/Field Offices will provide an estimate of the target performance measures assuming a decrement in funding equal to 85% of the target BA for each PBS. Performance measures include release site completions, nuclear materials stabilized, spent fuel stabilized, and waste volumes treated, stored, and disposed (see Attachment G for a complete list). Targets for these measures are used in numerous budget and planning documents. In the execution year, most, but not necessarily all, performance measure targets become management commitments.

Planned Field- Specific Performance Measures (1042):
EM will collect a site-wide narrative discussing specific performance measures to report in the OMB/Congressional Budget Request and/or the Quarterly Management Review (QMR).

8.2 Stream Disposition Data (SDD) Level

SDD, previously CPQT, are a key component of the Corporate Database. SDD are linked to projects; they represent the estimated pathway for the disposition of all contaminated media/waste/spent nuclear fuel in the EM program. The AVS detailed guidance will provide a pick list for identifying the confidence level of disposition stream hazardous and radiological contaminant data. EM will collect

SDD each year through FY 2010, and for five-year blocks thereafter through the end of the stream, project, or DOE life cycle.

Contaminated Media/Waste/Spent Nuclear Fuel Inventory and Disposition Information (1017):

- Stream Identification - EM requires basic information about the identity of each disposition stream: e.g., reporting/origin site, waste type, stream name, ID number, etc.

- Disposition Site, Facility, Activity, Technology - EM requires information concerning where and how the Operations/Field Office will disposition the stream (e.g., treatment off-site at Site X).

- Quantitative Data - EM requires information on the initial inventory, the quantities sites plan to add (generate) to that inventory each year, and the quantities the site plans to disposition from that inventory each year. The current estimate of in-place contaminated media volume is also required for contaminated media streams.

- PBS ID - Operations/Field Offices must link each stream to no more than one project responsible for storage of the inventory in a given year and one project responsible for disposition activity in a given year.

- ER Regulatory Process and Future Volumes - Operations/Field Offices must provide information on contaminated media stream volumes that the site will address through future decisions and the type of decision making process (CERCLA, RCRA, etc.) that is involved.

- ER Hazardous Waste - EM only requires those stream disposition data elements necessary for contaminated media streams designated as Hazardous necessary to support preparation of comprehensive Environmental Restoration program maps. There is no Headquarters/IPABS requirement to collect data on non-remediation hazardous waste streams or to prepare Hazardous Waste Maps. However, the AVS tool and database will support these functions and can be used, at the sites' convenience, to help establish a consistent method for compiling budget metrics associated with the hazardous waste BA budget category.

Stream Characteristics Information (1029):
For contaminated media streams only at this time, the Operations/Field Office should provide information on waste matrix components and chemical and radiological contaminants in the Spring Update. EM does NOT require data on non-remediation waste streams at this time. However, plans are underway to gather this information as part of the next annual Spring Update, and sites should plan accordingly. These data are needed to support various technical analyses and reports and to respond to Congressional budget and other inquiries.

Facilities Data - Treatment and Disposal Capability (1021):
EM needs to identify the targeted treatment or disposal facilities for the streams to fully describe the streams' disposition paths. This information is required for production of disposition maps, as well as integration and other analyses. Specific facility data include: facility name, location, owner, primary technology (e.g., thermal treatment). Sites will be able to pick from standard lists to provide these data.

In addition, EM will collect programmatic risk information for the treatment/disposal facilities. Programmatic risk scores range from 1 (low) to 5 (high) for the following categories (see Attachment H for definitions):

- Technology
- Work Scope Definition
- Facility/Equipment Limitations

Transportation Information (1500):
Transportation data are needed for streams subject to DOT regulation to support National Transportation Program planning and analysis. Required data include DOT material classes, packaging types and transport modes for any year; capacity of packages and number of packages anticipated per shipment; and information on any large objects that may have special transportation needs.

Programmatic Risk Categories, Scores, and TBDs (1018):
EM will collect information on three categories of programmatic risks for streams. Operations/Field Offices will score each category, from 1 to 5, to assess relative impact of this category in completing the disposition activities. For each risk category with a score greater than 2 or resulting in a TBD disposition, Operations/Field Offices will provide additional details on the factors or reasons driving the risk, or TBD. See Attachment H for the definitions of programmatic risk scores and Chapter 5 for how TBDs are defined. Programmatic risk categories include:

- Inter-site Dependency
- Work Scope Definition
- Technology - EM will also request Operations/Field Office to identify any related Science and Technology Needs or Opportunities and/or Focus Area Work Packages.

NOTE: Stream data on Nuclear Material streams are being **collected and managed separately** from the other stream data discussed here. Stream-level data on Nuclear Materials are derived from the Nuclear Materials Management and Safeguards System (NMMSS). Using these data, the Nuclear Materials Stewardship Program (EM-66, Albuquerque and Savannah River) teamed with the sites, prepared baseline Nuclear Material Disposition Maps. The subset of those maps describing nuclear material disposition pathways for which there are approved Records of Decision, will be distributed to the Operations/Field Offices and Headquarters Site Team Leads in the second quarter of FY 1999 for validation. For the Spring Update (April 15, 1999), the Operations/Field Offices must validate the Nuclear Material Disposition Maps and provide any modifications to the appropriate Headquarters Site Team Leads. The Nuclear Materials Stewardship Program will update the Nuclear Material Disposition Maps using input from the appropriate Headquarters Site Team Leads. However, EM will still collect annualized life-cycle nuclear material performance metrics in the PBS as discussed in Section 8.1.2.

8.3 Geographic Site Level Data

Geographic Site Completion Date (1051):
Each Operations/Field Office will provide the geographic site completion date including the following information:

- Date in the baseline when all EM activity as defined by the definition of completion (except stewardship) is complete
- Date in the baseline when financial waste management responsibility for newly generated, non-EM waste transfers from EM to the generating program.

End State (1073):
EM will collect geographic site end state information annually in a narrative.

P/W/E Hazards and Risks (1509, 1511):
EM will base most of the risk information requested for each site on the information contained in the Site Risk Profiles which will be seeded from information already compiled by the Center for Risk Excellence. Sites will only need to update the profiles, if necessary.

In addition, EM will collect an unranked list of the most serious P/W/E hazards and risks, including a brief description, on an annual basis for life-cycle planning. Each site will provide a description of the methodology used to develop the list of hazards and risks.

Stewardship (1074, 1075, 1077):

EM will seed stewardship information from the Stewardship Database that was collected in the Fall. The types of stewardship information that EM is collecting includes:

- Future Use
- Long-term Institutional Control Needs
- Future Geographic Site Stewardship Information

Complex-wide Type B Packaging Inventory (1521)
EM will collect information on packages designed for transporting Type B waste for planning complex-wide waste movements. Specific information includes the package name and serial number, certification number and date, and condition.

8.4 Site Summary Level Data

Budget Narrative (1003):
Each Operations/Field Office will provide a SSL budget narrative that highlights budget formulation year planned accomplishments based on the PBS-level FY 2000 accomplishments narrative. This narrative should include site-specific performance measures at the SSL.

Regulatory Agreement (1038):
EM will collect and display agreement information for review/update on a quarterly basis. The Operations/Field Office will provide the following specific information at the SSL:

- Agreement ID and name
- Date agreement was signed and last date it was modified
- Agreement description
- Agreement point of contact information

Safety and Health Narratives (1022):
EM will collect two Safety and Health narratives at the SSL. The controls narrative describes the formally-established and agreed-upon standards/requirements that the Operations/Field Office has tailored to address hazards associated with performing site activities. The feedback and continuous improvement narrative describes activities and mechanisms necessary to collect feedback information, identify and implement opportunities for improvement, and ensure oversight.

EM Life-Cycle Cost by Category (1039):
EM will collect life-cycle baseline cost information in current year dollars by category at the SSL annually through FY 2010 and in five-year blocks from FY 2011 through completion. The following is the valid list of categories:

- HLW Storage
- HLW Treatment
- TRU
- MLLW
- LLW
- Hazardous Waste (HAZ)
- All Other Waste Types
- Remedial Action Cleanup
- Remedial Action Assessment
- Decommissioning
- Nuclear Materials
- Deactivation
- Spent Nuclear Fuel
- Landlord
- Field Program Support
- Program Direction
- D&D Fund, Uranium/Thorium (U/Th)
- Science and Technology
- Headquarters Program Support
- National Programs
- LTS&M

Post-contract Worker Benefit Liability (1095):
EM will collect post-contract worker benefit liability information annually from closure sites (Fernald, Mound, West Valley, and Rocky Flats) identified in *Paths to Closure* which includes the following specific information:

- Planned EM completion date
- Pension cost
- Medical and life insurance cost
- Post-employment benefits (e.g., severance cost)

Programmatic Risk Narrative- optional (1018):
To capture additional programmatic risk information, EM will collect SSL narratives.

Top 5-10 Programmatic Risk Summary (1104):
Each Operations/Field Office must prepare a programmatic risk summary identifying the most serious programmatic risks at the site along with a brief discussion of the nature of the risk and the responsible entity. The Operations/Field Office can associate these risks with a specific stream or critical closure path milestone, but this association is not a requirement. Operations/Field Offices can also identify additional programmatic risks that are not directly associated with a stream or critical closure path milestone. Please refer to Attachment J for an example summary of high programmatic risk list.

Annual SSL Baseline Reconciliation (1101):
At the SSL, EM will collect a narrative discussing significant changes in life-cycle planning assumptions and cost from the prior year's life-cycle data submission. The narrative should discuss changes in life-

cycle cost, the critical closure path, and how performance in the prior year affected the overall cost and schedule for the project. This information will be collected in the life-cycle planning update.

Estimate for Cleanup of Excess Facilities (1103):
For the April 15th data submittal, Operations/Field Offices will need to submit an order of magnitude estimate for the cleanup of facilities (de-escalated to constant 1999 dollars) that are not in the EM inventory but are currently excess or are projected to be excess as of the April 15th submittal. This estimate should not be part of a PBS; rather, the Operations/Field Office should provide the estimate separately in the SSL and it should represent additional costs above the baseline estimates. In addition, each Operations/Field Office can provide a narrative discussion of its estimate if necessary.

Impacts of Changes in End State (1105)
For the April 15th data submittal, EM will notify the selected Operations/Field Offices that will need to provide a narrative that discusses the impacts of changes in end state on cost and completion date.

8.5 Operations/Field Office Level Data

The data collected at the Operations/Field Office level can be grouped into two types: IPL and contracting profile. EM uses these high level data elements to support budget formulation.

Integrated Priority List (IPL) (1006):
EM collects IPL data for the three year budget window annually in the spring to satisfy budget requirements. The Operations/Field Office should associate each IPL element with a single project or a sub-element of a single project. EM will collect BA percent allocation of the target level and planning level for each element on the IPL by driver category (e.g., compliance, DNFSB, etc.). For FY 2001 only, Operations/Field Offices will provide an estimate of the IPL assuming a decrement in funding equal to 85% of the target BA for each element. Each Operations/Field Office will rank each element in their IPL, and discuss, in a narrative, the effect that different funding levels would have upon compliance for each element. In addition, EM will collect CFO peer review category information for each IPL element (e.g., minimum safety, essential services, significant safety issues, etc.).

Contracting Profile (1014):
Headquarters will collect information regarding the type of contracts that are in use at each Operations/Field Office. EM will analyze this information to better understand how EM procurement strategies are increasing efficiency and can be further improved. EM will ask Operations/Field Offices to provide the percentage of FY 1998 funding expended on each contract type.

This page intentionally left blank.

CHAPTER 9 DATA USES

This chapter is not a guidance chapter, but rather a summary of some of the uses for the data that EM is collecting. The following categories describes how EM uses the data:

- Integration, Summarization, and Communication
- Budget Formulation, Execution and Justification
- Performance Measurement
- Program Management and Evaluation
- Science and Technology Development

Exhibit 9-1 summarizes the data that EM will collect by various collection levels.

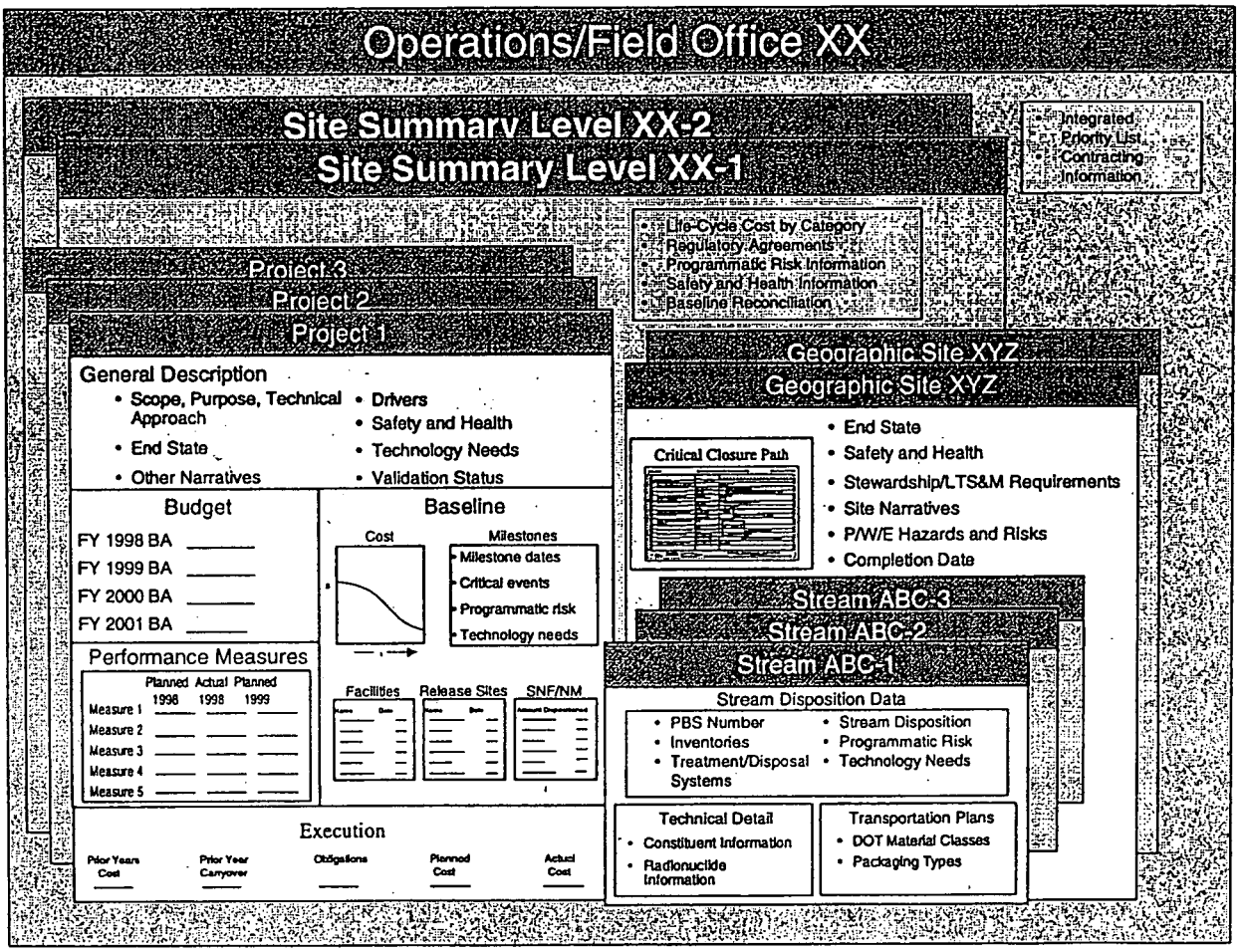
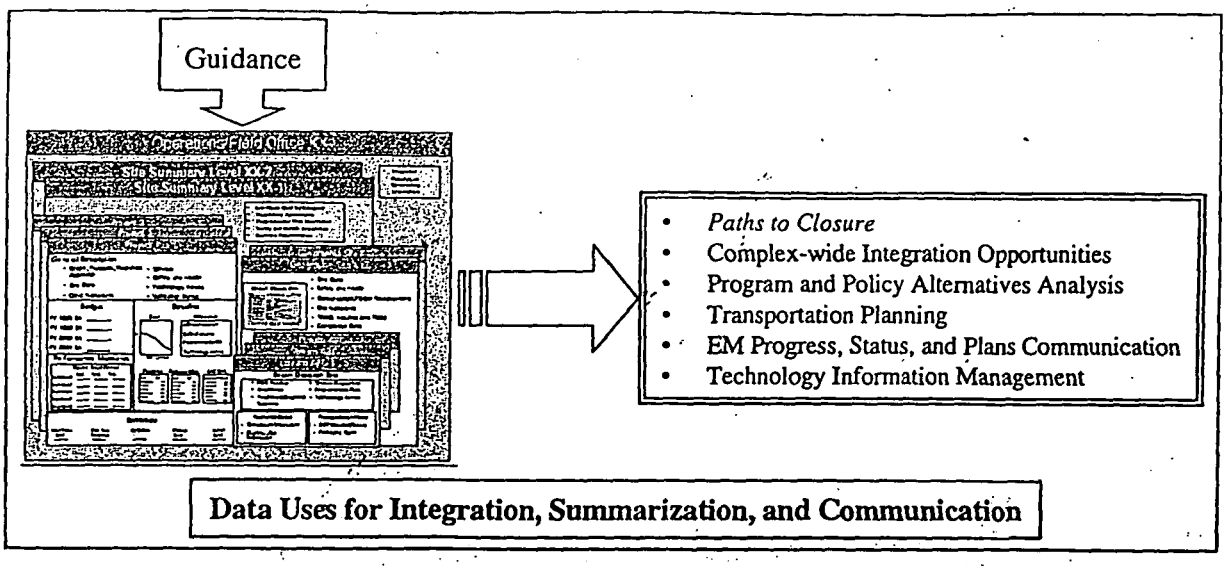


Exhibit 9-1: Data Interrelationships

9.1 Integration, Summarization, and Communication



- *Paths to Closure*

The DOE Strategic Plan and regulatory, technical, and stakeholder and Tribal Nation requirements drive EM planning. Within EM, *Paths to Closure* is the blueprint for the program. EM uses most of the data collected as part of Spring Update to the Corporate Database in national reports like *Paths to Closure*. Among other things, information from *Paths to Closure* becomes the starting point for the budgeting process.

- Analyzing Complex-Wide Integration Opportunities

Stream-level data are critical in supporting EM Integration efforts to identify and evaluate opportunities to optimize resources and accelerate site closures. Cross-site integration opportunities, such as identifying alternatives to building treatment capacity at Rocky Flats, are a high priority. The integration process has identified a list of opportunities that could be pursued to overcome barriers and enable disposition paths.

- Analyzing Program and Policy Alternatives and Regulatory Impacts

EM has used stream-level data extensively in the past year to analyze complex-wide treatment and disposal alternatives for the Programmatic Environmental Impact Statement (PEIS) Records of Decision for MLLW and LLW; prepare the bi-annual LLW Disposal Capacity Report to the Defense Nuclear Facilities Safety Board (DNFSB-94-2); analyze the DOE policy for commercial disposal of LLW; and, identify waste currently targeted for treatment at DOE incinerators now subject to the Maximum Achievable Control Technology (MACT) rule. Such analyses and reports simultaneously fulfill regulatory obligations and help facilitate critical decision making.

- Transportation Planning

EM uses data on inter-site transfer volumes and schedules, together with data on DOT material classifications, packaging requirements, etc. to ensure the availability of appropriate shipping containers and development of comprehensive integrated transportation schedules for all transportation corridors. These data will help ensure that transportation does not become a barrier to integration and/or to site EM mission completion activities.

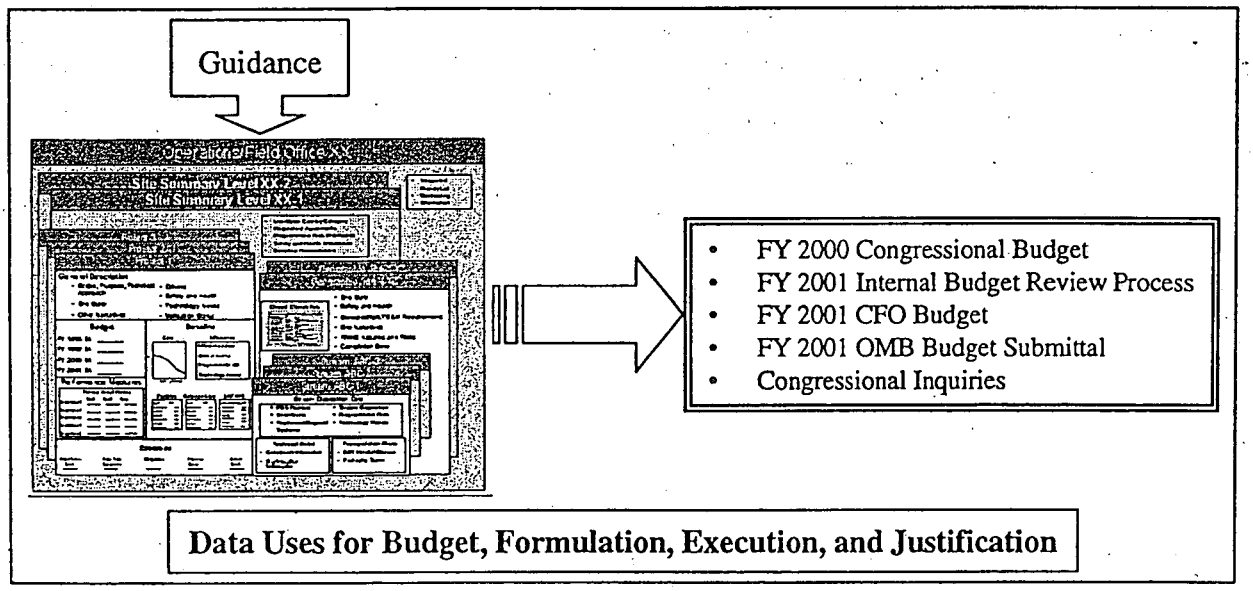
- Communicating EM Progress, Status, and Plans

In countless formal and informal documents and products, EM uses data in order to articulate the scope, cost, and schedule of the EM program. The EM Corporate Database is the source for data to answer Congressional inquiries, to communicate with key stakeholder organizations such as the National Governors' Association, and to prepare waste type End State Reports.

- Supporting Technical Information Management at Headquarters

EM Headquarters routinely requires detailed technical information for the purposes of analysis and reporting. Technical detail may include knowing which geographic sites have groundwater contaminated with specific volatile organic compounds or what the total activity level (in Curies) of radioactive contaminants are at a specific site. Whether to address an inquiry from a special interest group, an oversight agency, or a Headquarters Program Manager, the Corporate Database often contains sufficient information to respond to the inquiry.

9.2 Budget Formulation, Execution, and Justification

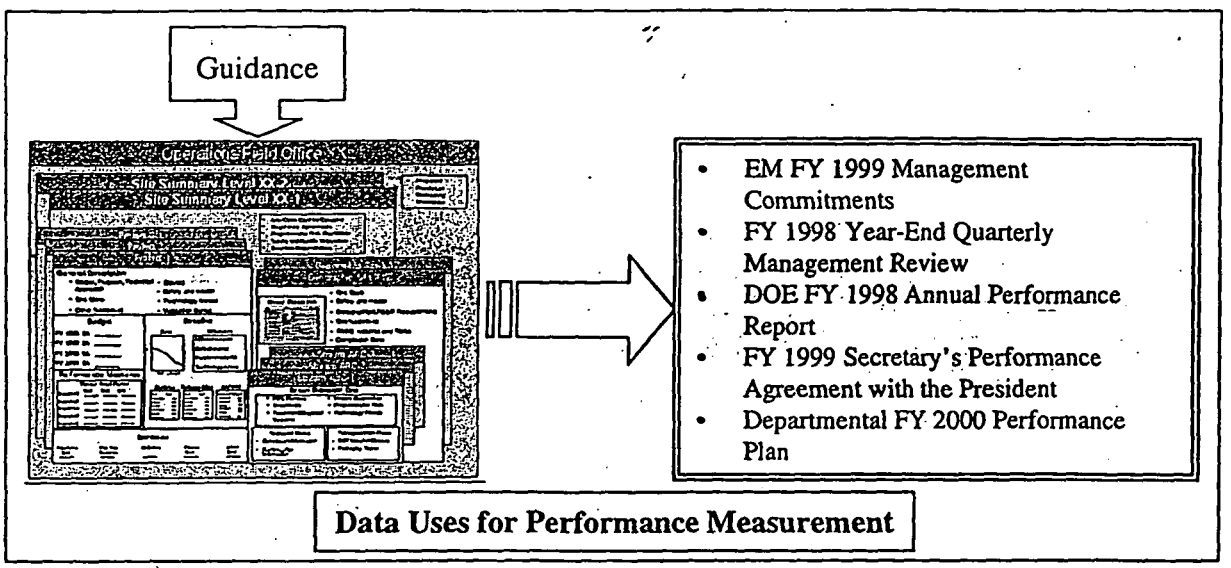


The FY 2000 Congressional budget will contain FY 1998, FY 1999, and FY 2000 BA and metrics data from project data collected in the Fall of 1998. Any life-cycle data reported in the FY 2000 Congressional budget will be consistent with what was reported in the July,1998 *Paths to Closure*. The BA and metric data for FY 2001, provided by the Operations/Field Office in response to this guidance, and the BA and metric data for FY 1999 and FY 2000, provided in the Fall of 1998, will be the basis for the dataset used to support the following requirements:

- The internal budget review process (April-June, 1999)
- The CFO budget submittal (June, 1999)
- The OMB budget submittal (September, 1999)

Budget formulation and justification will also be supported by life-cycle planning information collected this spring.

9.3 Performance Measurement



PBSs contain project performance information, including planned and actual costs, milestone dates, and performance measures. EM reports the status of evaluation information in the PBS either monthly, quarterly, or semiannually, depending on the type of data being reported. Performance measures are linked to life-cycle objectives and are used to support a number of EM reporting requirements:

- **EM FY 1999 Management Commitments** (Final in January, 1999). The Assistant Secretary for Environmental Management and each Site Manager sign an agreement each year that commits each site to accomplishing a certain scope of work. These commitments are based upon performance measures data, milestones, and measures for EM's high visibility projects. Management Commitments for FY 1999 will be based on FY 1999 metric data and reported milestones.

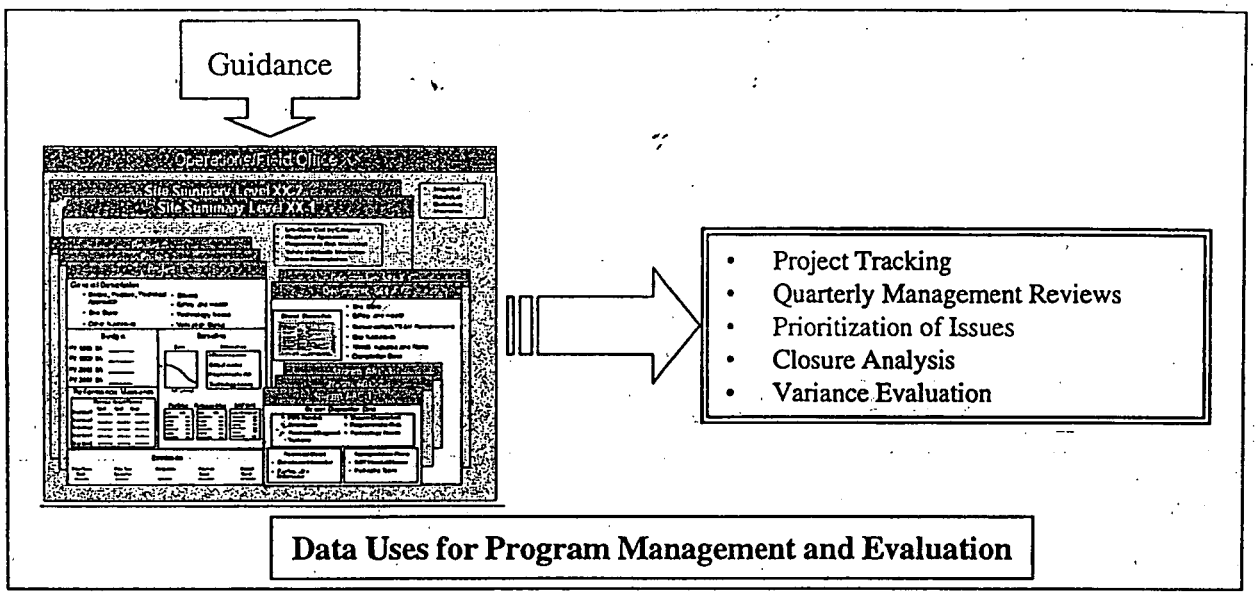
- **FY 1998 Year-End Quarterly Management Review** (December, 1998). The Assistant Secretary for Environmental Management and the Assistant Manager for Environmental Management for each site discuss and review performance results during Headquarters/Field senior level management reviews.

- **DOE FY 1998 Annual Performance Report** (March, 1999). This report provides the actual results and progress toward the Department's performance goals defined in the Annual Performance Plan. EM will base this report on FY 1998 actuals data (BA and metrics).

- **FY 1999 Secretary's Performance Agreement with the President** (January, 1999). This report identifies DOE's highest priority fiscal year commitments and success measures for each business

line. EM will base this report on FY 1999 BA and metrics data consistent with the final appropriations.

- **Departmental FY 2000 Performance Plan** (February, 1999) This report includes performance measures and goals for the fiscal year budget request for key Departmental activities. The draft FY



2000 Annual Performance Plan is submitted along with the budget to OMB in the fall and is finalized when the budget is transmitted to Congress in early February. EM's section of the Department's Plan will include key measures and associated fiscal year goals. EM will base this report on FY 1998, FY 1999, and FY 2000 BA and metrics data consistent with the Congressional budget request.

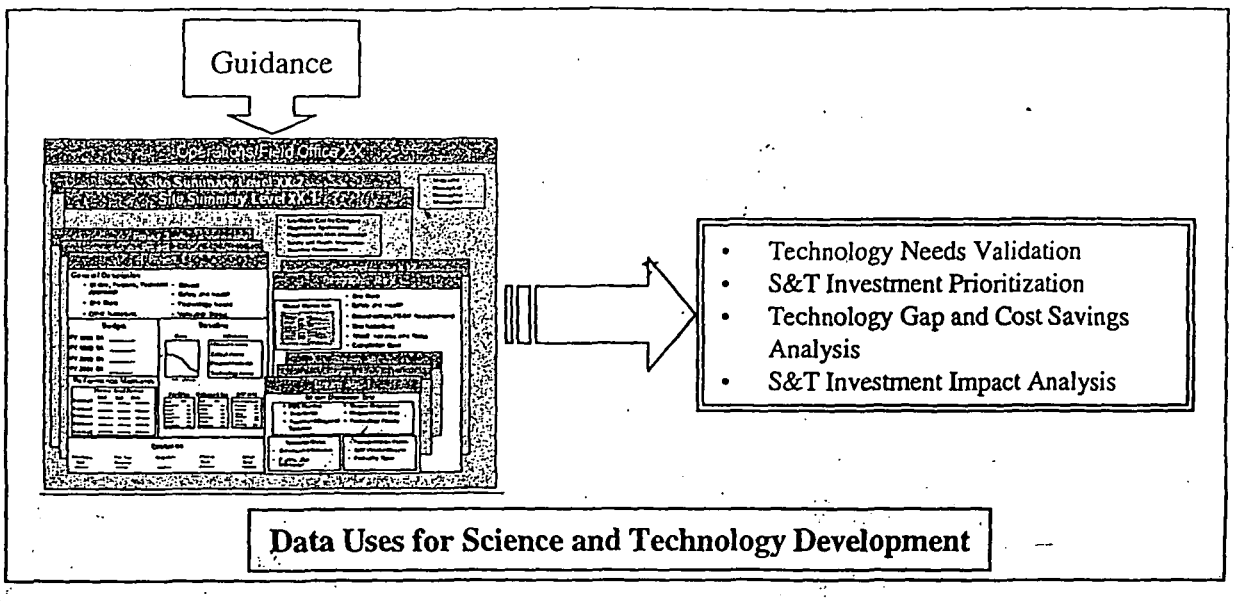
9.4 Program Management and Evaluation

For the execution year, Headquarters will receive relevant status information from the Operations/Field Office that includes cost performance, schedule performance (milestones completed), and a list of major issues/concerns. This routine reporting will allow EM to demonstrate financial and managerial control.

EM will collect execution tracking data quarterly for PBS actual cost, execution narratives, and milestones (other than DNFSB commitments), monthly for Office of Science and Technology Technical Task Plans (TTPs) and DNFSB milestones, and semi-annually for performance measures. EM will use these data to support the QMR, the Quarterly Report to the Office of Field Management, and various program management activities.

Routine reporting will also allow Headquarters management to track key milestones (e.g., those on the critical path, enforceable agreement milestones, etc.). Along with routine interactions between Headquarters and the sites, IPABS will identify potential cost and schedule problems. Programmatic risk attributes have been associated with waste streams and selected milestones (i.e., those on the critical path) to further enhance the focus on potential risks in these areas.

9.5 Science and Technology Development



EM will use the *Paths to Closure* Science and Technology data to improve and measure the impact of EM's science and technology investments by contributing to the following processes:

- Validation of Site Science and Technology Needs and Opportunities Statements and Focus Area Work Packages

The guidance for April 15, 1999 requires the Operations/Field Office to identify science and technology needs and opportunities directly in the technical approach section of the relevant PBS. This requirement dictates an additional level of communication between the Science and Technology Coordinating group (STCG) and the PBS manager and serves as a validation of the FY 1999 site science and technology needs and opportunity statement.

Operations/Field Offices will validate Focus Area Work Packages in a manner similar to the validation of the FY 1999 needs statements. Focus Area teams have proposed linkages between their work packages and the PBSs and the existing FY 1998 STCG needs. EM will validate the applicability of the work packages to specific PBSs and corresponding FY 1999 needs statements in the technical approach sections of the PBSs. This validation enables the Focus Area Work Package to be included in the Office of Science and Technology national prioritization methodology. EM will not fund those Focus Area Work Packages that are proposed, but do not show up in PBSs.

- National Prioritization of EM's Science and Technology Investments

For the first time, EM used a national tool to help prioritize Focus Area Work Packages for the FY 2000 Internal Review Budget. The tool used data that the Operations/Field Offices submitted in January 1998 as part of *Paths to Closure*. These data included: PBS life-cycle cost; Environment, Safety and Health risk and project visibility; technological risk from the SDD and the critical closure paths analysis; FY 1998 STCG needs; technology deployments; and potential cost savings. While the data were of insufficient quality in a number of cases, the prioritization tool proved effective in providing an initial

ranking of Focus Area Work Packages. EM is currently taking steps to improve the national prioritization system for use in preparing the FY 2001 Internal Review Budget and the FY 2000 Program Execution Guidance. While EM intends to change some of the criteria and modify their weights, there is a commitment to use *Paths to Closure* data to conduct the prioritization.

- Identification of Technology Gaps and Technology Based Cost Savings Where EM is Not, But Should Be, Making Science and Technology Investments.

EM will use *Paths to Closure* data to identify those PBSs, disposition streams, critical pathways, and FY 1999 needs statements that require, but do not currently have, adequate science and technology investments. By evaluating the technical approach sections of the PBSs, the technological risk levels in the SDD, and the critical closure paths, EM can help determine where the highest technological risks with the greatest impact lie. This activity is currently underway under the auspices of the EM Integration effort (see below), but is focused on using only the disposition map data. EM will also use the *Paths to Closure* data to identify the high cost, long term projects with low technological risks. EM will analyze these PBSs to determine if new technology could be brought to bear to reduce costs at the possible expense of greater programmatic risk.

- Measuring the Impact of EM's Science and Technology Investments.

The EM Research and Development Program Plan identifies four complementary performance measures for use in evaluating the impact of EM's investments in science and technology. EM can also use the measures to indicate how effectively EM's PBS managers use the advancements in science and the availability of new technology to execute their projects. The performance measures include: technology based contributions to EM's enhanced performance goals; the impact of deploying new technology; the ability to meet high priority site needs; and, reduction in programmatic risk. With the addition of Focus Area Work Packages to the PBSs, the SDD, and the critical closure path milestones, the information needed to support these performance measures will be available in the April 1999 Operations/Field Office data submittal. EM can then evaluate Focus Areas on their ability to meet high priority needs within the schedule requirements of the PBSs as well as their effectiveness in supporting reduction in technological risk.

This page intentionally left blank.

CHAPTER 10 DATA COLLECTION TOOLS

EM is using two data collection tools for the FY 1999 Corporate Database update: the Limited Updating, Viewing, and Reporting Tool and the Analysis and Visualization System (AVS). The following sections provide an overview of the relationship of the data collection tools to EM's data management process; the schedule of data update, review and approval; and EM's strategy for technical and site user support for the data collection process.

10.1 Data Collection Methods and Reporting Options

The Limited Updating, Viewing, and Reporting Tool will support data collection at the Project, Geographic Site, SSL, and Operations/Field Office Levels, while AVS will support data collection at the Stream Level (see Exhibit 10-1 below).

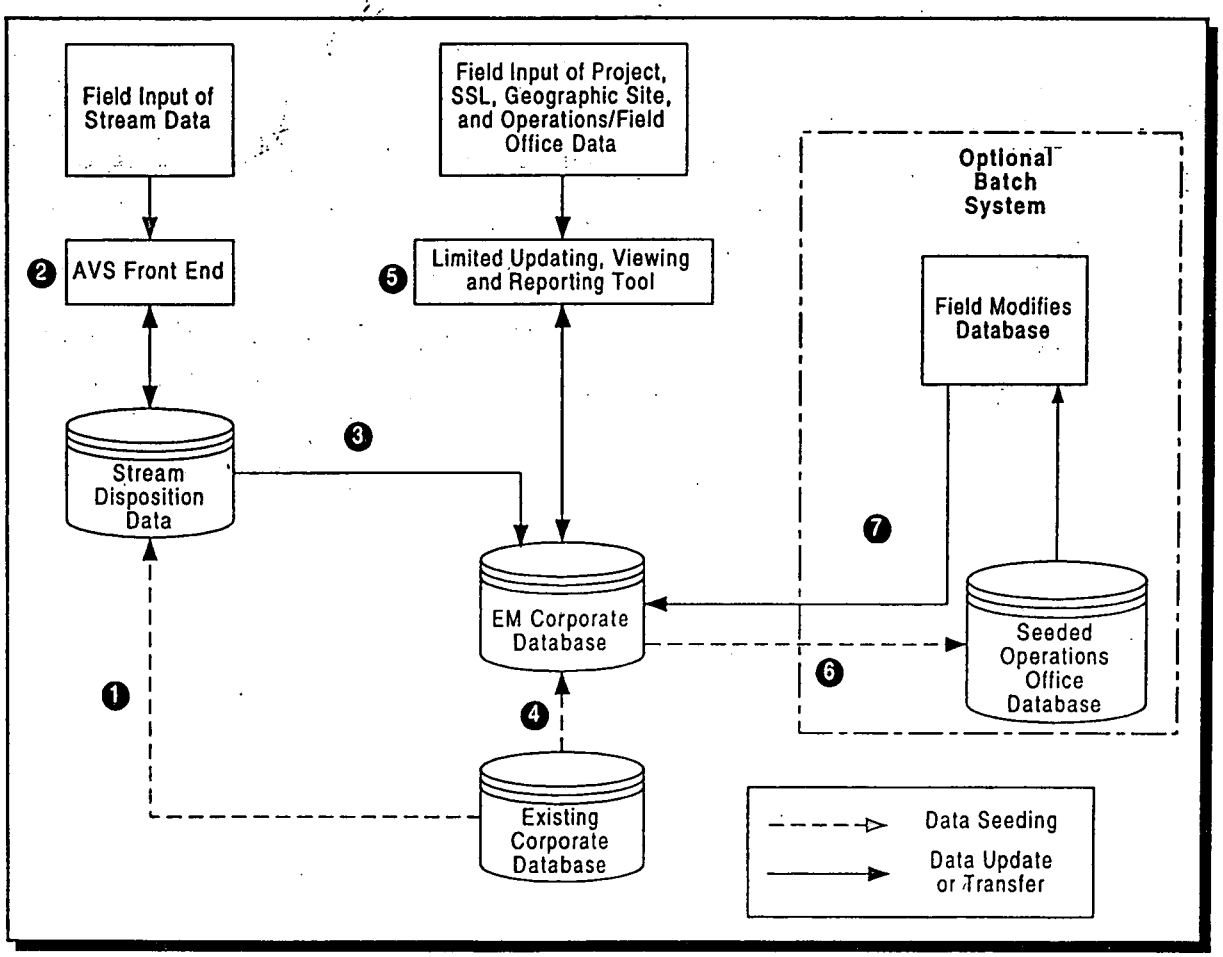


Exhibit 10-1: Data Collection Tools

Exhibit 10-1 summarizes the data flows during the update process:

1. EM seeds stream data from the EM Corporate Database into the Stream Disposition Database
2. The Operations/Field Office updates stream data using AVS

3. Periodically, EM updates stream data in the EM Corporate Database with the valid data from the Stream Disposition Data
4. All data other than stream data are migrated to the new EM Corporate Database, reflecting the current approved requirements
5. The Operations/Field Office updates all non-stream data using the Limited Updating, Viewing, and Reporting Tool

6, 7. As an alternative to (2) and/or (5), Operations/Field Offices can provide batch input to the Corporate Database through a seeded file from the EM Corporate Database. Operations/Field Offices need to get permission from the EM CIO by January 6, 1999 to enable support for batch input. Following EM CIO procedures, the Operations/Field Office can update the seeded database and submit it back to Headquarters. Headquarters will validate the batch input data and upload it to the EM Corporate Database. Operations/Field Offices can then edit/update the data through the Limited Updating, Viewing, and Reporting Tool.

A list of standard reporting options will be accessible through the Limited Updating, Viewing, and Reporting Tool and AVS. For example, the AVS list should include: Baseline Disposition Maps, Input/Output Diagrams, Quality Control (QC) checks & reports (e.g., shipping & receiving reports, qualitative and quantitative disconnects, annual shipping schedule disconnects); PBS summaries; and, barrier "stoplight" overlays. The User Handbooks will contain the final list of reports that these tools support.

10.2 Data Update, Review and Approval Schedule

Exhibit 10-2 summarizes the schedule for Headquarters data collection, data guidance, and training and support in the Spring Update.

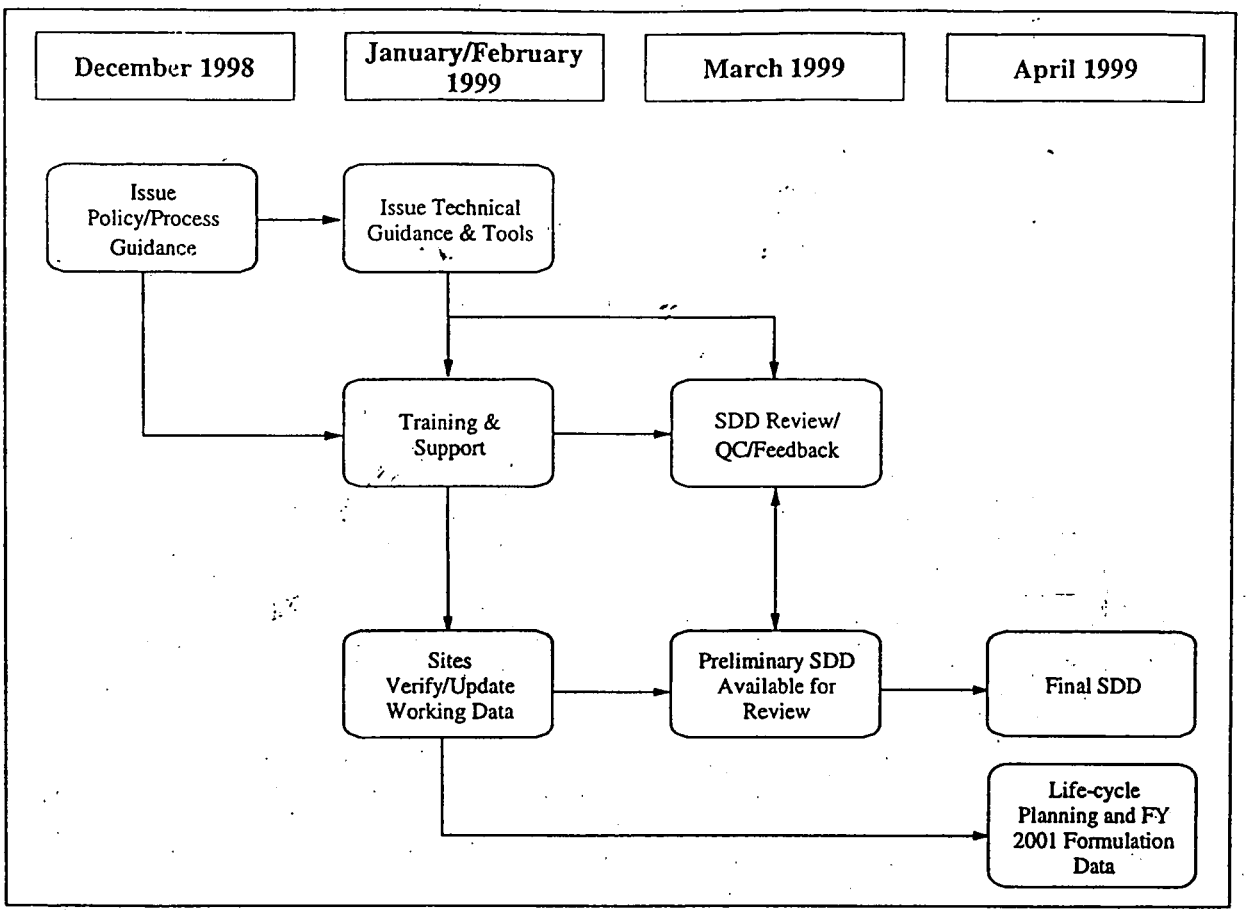


Exhibit 10-2: Data Update, Review, and Approval

- Issue Policy/Process Guidance (December, 1998): This guidance provides details on how system implementation will proceed, when data are to be made available for initial Headquarters and National Program review, and when final, site approved data must be available for preparation of the next *Paths to Closure* report. Operations/Field Offices should prepare to start updating data in January.

- Issue Technical Guidance and Tools (January/February, 1999): EM will release the Technical Guidance and necessary data collection tools (populated with current working data) to support the Spring Update. Operations/Field Offices begin entering/updating SDD.

- Training and Support (January, 1999): EM will provide training and technical support to sites to speed their understanding and use of system features.

- Operations/Field Offices Verify/Update Working Data (January - April, 1999): Operations/Field Offices verify and/or revise the working data provided in the tools. Operations/Field Offices "own" the working data and have exclusive editing authority over the data. Headquarters/Program reviews of data (described below) channel comments back to the Operations/Field Offices for their approval.

- Preliminary SDD Available (March, 1999): Starting in March, EM will provide preliminary Operations/Field Office updated SDD through the AVS to support reviews by Headquarters Site Leads, National Programs, and other data users.

- SDD Review/QC/Feedback Process (March, 1999): Headquarters, National Programs and Operations/Field Offices will work closely to identify and correct disconnects and inconsistencies in the working data set. Reviews will begin at least 30 days prior to final data deadline to allow adequate time for issue identification, iteration, and resolution. In AVS, working to resolve inter-site transfer disconnects will be a priority. The review process will include, but will not be limited to: conducting QC checks, sending QC/issue summary reports to sites, follow-up decisions, and technical support as required to facilitate issue resolution. Operations/Field Offices will then adjust their working SDD as appropriate.

- Final SDD (April, 1999): Operations/Field Offices must be prepared to release a "field-approved" SDD set for Headquarters use in preparation of the *Paths to Closure* report, budget formulation, and other analyses and reports.

- Life-cycle Planning and FY 2001 Formulation Data (April, 1999): Operations/Field Offices must submit the life-cycle planning and FY 2001 formulation data in the Limited Updating, Viewing, and Reporting Tool.

10.3 EM Support

10.3.1 Site User Training and Technical Support

Training and support will be available throughout the data update process. Operations/Field Offices can schedule onsite training sessions for the AVS tool by contacting Jonathan Kang (301) 903-7178. More information on training for the Limited Updating, Viewing, and Reporting Tool is forthcoming. EM will provide technical assistance and support, as required, to ensure that the update process proceeds smoothly. EM is prepared to provide onsite assistance, one-on-one phone support, or group conference calls to assist the data collection process.

10.3.2 Technical Guidance and Detailed Instructions

The Limited Updating, Viewing, and Reporting Tool and AVS User Handbooks will include detailed screen-by-screen data entry instructions, data element definitions, data collection work forms, and descriptions of standard reporting options. EM has designed these instructions and aids to be as efficient as possible while fostering consistent complex-wide interpretation and application of key IPABS data element requirements and relationships.

The Handbooks will provide all of the information needed to use the Limited Updating, Viewing, and Reporting Tool and the AVS as data maintenance and entry tools. They will describe each data entry screen and any associated data collection forms, how to edit working data, how to enter new data and streams, and how to generate reports and submit final data.

The detailed instructions will provide data element definitions and references and describe all of the logical data relationships to the user, and explain the importance of maintaining complete and consistent baselines.

CHAPTER 11 SITE INPUTS TO *PATHS TO CLOSURE*

This chapter discusses two sets of requirements for which EM Headquarters requests Operations/Field Office input: (1) 1999 update to the site *Paths to Closure* reports and (2) the site-related portions of the 1999 update of the National *Paths to Closure* report.

11.1 Site Paths to Closure Reports

As was the case in 1998, each Operations/Field Office must prepare a site version of *Paths to Closure*. This section contains an outline for these reports. All information that the site reports must be consistent with the information provided to Headquarters on April 15, 1999.

Executive Summary

Provide a synopsis of each section of this outline (graphics are encouraged)

I. Introduction

Overview of geographic site(s) and EM mission (e.g., purpose, background) including discussion of site history and major challenges

II. Strategies and Prioritization

- General overview of cleanup approach; expected accomplishments through 2006 and post 2006, and what activities remain after 2006
- General discussion of EM policies such as compliance, risk, environmental safety and health, worker transition
- Description of the compliance drivers at the site(s)
- Discussion of broad site/National planning assumptions
- Discussion of relationship between the budget formulation process and the life-cycle planning process
- Overview of contracting approach, with description of organizational responsibilities in administering contracts, and percentage of site's overall budget expended on different contract types
- Status of privatization projects, if applicable

III. End State and Stewardship

- Discussion of the end of FY 2006 end state and the planning end state (if different from 2006). Sites should base *Paths to Closure* and associated data on the best available end state assumptions for each geographic site. However, Operations/Field Offices must make decisions about end states and cleanup approaches to achieve those end states in accordance with the requirements of CERCLA, RCRA, and other applicable statutes and may differ from the assumptions described in this document.
- Include *current use maps, 2006 end-state map, and planning end-state map* (if different from 2006)
- Discussion of future use plans for the site(s)
- Discussion and description of long-term stewardship requirements (costs of long-term surveillance and maintenance and types of activities)

IV. **Scope, Cost, and Schedule**

- Description of the scope of work to be performed to achieve the end state
- Cost and schedule (*life-cycle cost profile and project completion profile graphic*)-- include costs in current 1999 dollars
- Cost and schedule estimating methodology (including validation status of current baselines)

V. **Critical Closure Path**

Identification and discussion of critical closure path that outlines high-level activities, events, and/or decisions that have to occur to meet the EM mission completion date (include *critical closure path graphic*)

VI. **Progress/Changes From Last Year**

- Discussion of success stories from FY 1998
- Discussion of any changes to baseline assumptions from last year
- Discussion of the reason why the life-cycle cost has changed
- Discussion of any major changes in the critical closure path or the EM mission completion date
- Discussion of how FY 1998 performance affected life-cycle cost and schedule

VII. **Disposition Planning**

- Discussion of waste and material disposition plans including waste and material interfaces
- Include *disposition maps*
- Discussion of "TBD" waste stream status for disposition maps

VIII. **Programmatic Risk**

- Detailed description of the high programmatic risk activities, events, and streams related to the critical closure path or the disposition of waste/media
- Summary of programmatic risks at the site(s) (See Attachment J for an example)
- Brief discussion of mitigation plans for the high risk activities/events

IX. **Public/Worker/Environmental Hazards and Risks**

- Discussion of risks and hazards profile for each waste type including description of magnitude of the problem at the site(s) – this discussion should be based on the Site Risk Profiles developed by each site in conjunction with the Center for Risk Excellence
- Description of the 5-10 most serious P/W/E hazards and risks and how the site is addressing the risks

XI. **Enhanced Baseline Development (optional) (See Section 7.5)**

Identify individual opportunities to optimize the cost and schedule at each site by leveraging opportunities in the following areas: integration opportunities (inter and intra-site) consistent with the ongoing integration initiative; application of science and technology and process change; and from lessons learned

XII. **Tribal Nation, State and Local Government Official, Regulator, and Stakeholder Involvement**

- Description of the opportunities that Operations/Field Offices have provided for Tribal Nations, state and local government officials, regulators, and stakeholders to be involved,

including involvement in developing Site Risk Profiles and in integration activities and the method the Operations/Field Offices used to consider any input received
- Discussion of future opportunities for Tribal Nations, state and local government officials, regulators, and stakeholders to participate and plans for considering their input

11.2 Site-related Portions of the National *Paths to Closure* Report

EM Headquarters requires assistance from each Operations/Field Office in updating the site-related portions of the 1998 National *Paths to Closure* report for this year's annual update to the National report. The site-related portions of last year's report[4] include Chapter 3 (for the Rocky Flats Field Office, the Richland Operations Office, and the Savannah River Operations Office) and Appendix E (for the remaining Operations/Field Offices).

Current plans call for the site-related portions of the1999 National *Paths to Closure* report to follow the same general organization and format as the 1998 report; however the location of individual Operations/Field Office sections may be different (i.e., they may all be in the same general location in 1999). Therefore, EM Headquarters requests each Operations/Field Office to review their respective portions of either Chapter 3 or Appendix E of the 1998 report and provide line edits and new information as indicated below by April 30, 1999:

- Overview (Introductory Section). Operations/Field offices should mark-up last year's section.
- End State. Operations/Field offices should mark-up last year's section.
- Work Scope Summary. Operations/Field offices should mark-up last year's section and ensure that the mark-up is consistent with SDD and relevant disposition maps.
- Critical Closure Path. Operations/Field offices should provide a summary critical closure path graphic, which is consistent with critical closure path milestones in the database.
- Programmatic Risk. Operations/Field offices need not provide any mark-ups of last year's text. The programmatic risk description in the 1999 National *Paths to Closure* report will focus on the summary table provided (see Attachment J).

Except for the summary critical closure path graphic referenced in the third bullet point above, Operations/Field Offices need not update any of the graphics in Chapter 3 or Appendix E because EM Headquarters will update those graphics using the data Operations/Field Offices supply by April 15, 1999 in response to this guidance document.

[4] *Accelerating Cleanup: Paths to Closure*, U.S. Department of Energy, Office of Environmental Management (DOE/EM-0362), Washington, DC, June 1998.

This page intentionally left blank.

Attachment A

Detailed Schedule

Attachment A: Detailed Schedule

Exhibit A-1: Overall Milestones for Data Guidance and Data Submission

Date	Description
December 21, 1998	Issue Policy and Guidance for Spring Update
December 30, 1998	Submit Phase II Budget Data (FY 1999 and 2000) to Headquarters
January 15, 1999	Issue Technical Guidance and AVS Tool
January 31, 1999	Final Date to Request Changes to PBS Structure
February 1, 1999	Issue Technical Guidance and Tool for Life-cycle Planning and FY 2001 Formulation Data
March 15, 1999	Submit Preliminary SDD in AVS
March 15-April 15, 1999	Review/Update SDD
April 15, 1999	Submit Final SDD in AVS
April 15, 1999	Submit Planning Data in Limited Updating, Viewing, and Reporting Tool
April 15, 1999	Submit FY 2001 Formulation Data in Limited Updating, Viewing, and Reporting Tool
April 15, 1999	Submit Validated Nuclear Materials Baseline Disposition Maps to Headquarters

Exhibit A-2: Milestones Specific to *Paths to Closure*

Date	Description
April 30, 1999	Submit Site Summaries for National *Paths to Closure* Report.
May 14, 1999	Submit Draft Site *Paths to Closure* to Headquarters
June 1999	Final National/Site *Paths to Closure* Issued

Exhibit A-3: Milestones Specific to the FY 2001 Budget Process

Date	Description
TBD	Headquarters will transmit FY 2001-FY 2006 targets as soon as they become available.
April 15 - May 15, 1999	Headquarters Analyses FY 2001 budget data.
Mid-May 1999	EM Corporate Forum hearings on the FY 2001 budget request.

Date	Description
Mid-May - June 1999	Headquarters develops FY 2001 Corporate Review Budget for the submission to the Chief Financial Officer. Stakeholder involvement in the financial aspects of the FY 2000 budget is suspended since the budget data is embargoed.
Early August 1999	EM receives final Secretarial decisions on the FY 2001 budget and begins developing OMB budget submission.
September 1, 1999	DOE transmits EM budget submission to OMB.
October 1999	Headquarters transmits for the FY 2001 Performance Based Budget Guidance requesting phased updates to FY 1999, FY 2000 and FY 2001 data.
Mid-November 1999	Phase I update to FY 1999 budget authority and year-end actual data for budget and performance measures due.
Mid-to-late November 1999	EM receives OMB FY 2001 passback decisions from OMB.
Late December 1999	Phase II update to FY 2000 budget and performance data to reflect the Appropriation and updates to the FY 2001 data to reflect the OMB passback.
Late December 1999-January, 2000	Headquarters develops FY 2001 Congressional budget request.
Early February 2000	The Department of Energy transmits EM's FY 2001 budget to Congress.
August 2000	EM develops initial Approved Funding Program(AFP) based on Appropriation action to date. Field begins development of FY 2001 Management Commitments based on AFP level of funding.
September 2000	Congress appropriates funding for FY 2001.
October 1, 2000	FY 2001 fiscal year begins.
October - Mid November, 2000	EM allocates FY 2001 appropriation to Field Offices.
Mid-November-Early December 2000	Field reviews FY 2001 allocations and revises and finalizes Management Commitments based on final EM allocations, where necessary.
February 2001	First Quarterly Management Review
May 2001	Second Quarterly Management Review
August 2001	Third Quarterly Management Review
November 2001	Fourth Quarterly Management Review

This page intentionally left blank.

Attachment B

Information Required to be Submitted by the Field through June 15, 1999

Attachment B
Information Required to be Submitted by the Field through June 15, 1999

Requirement	Tentative Date Due to HQ	Page Reference(s)
Budget and Science and Technology Needs Data in Accordance with the October 21, 1998 Guidance	See Guidance	N/A
All Requests for Changes to the PBS Structure Due to EM-23 (Eli Bronstein)	January 31	4-1
Submit Draft SDD in AVS	March 15	2-1 and 10-1 – 10-4
Submit Final SDD in AVS	April 15	2-1 and 10-1 – 10-4
Submit Life-Cycle Planning Data in Limited Updating, Viewing, and Reporting Tool	April 15	2-1 and 10-1 – 10-4
Submit FY 2001 Formulation Data in Limited Updating, Viewing and Reporting Tool	April 15	2-1 and 6-1
Excess Facility Order of Magnitude Estimate	April 15	5-2
Estimate of How Changes in End State Affect Cost and Schedule for Selected Sites (TBD)	April 15	5-2 and 8-10
PBS and Site Annual Baseline Reconciliation Explanations	April 15	7-2 – 7-5
Submit Validated Nuclear Material Baseline Disposition Maps	April 15	2-1 and 8-8
Programmatic Risk Summaries in SSLs	April 15	11-2 and Attachment J
Submit Updates to Site Summaries for the National *Paths to Closure* Report	April 30	2-1 and 11-3
Draft Site *Paths to Closure* Reports	May 14	2-1 and 11-1 – 11-2
Final Site *Paths to Closure* Reports	June 15	2-1 and 11-1 – 11-2

Attachment C

Broad Objectives and Scope of the IPABS-IS

Attachment C
Broad Objectives and Scope of the IPABS-IS

Objectives of IPABS-IS

1. Support EM's business processes, including planning, budgeting and execution that are integral to achieving EM's mission.

2. Bring timely and reliable data to the desktops of Field and Headquarters users, which is relevant to program/project management and reporting activities, and national policy.

3. EM's ability to consistently and accurately provide information to other DOE programs (including FM, CFO, and EH), to stakeholders, to other Federal Agencies, and to Congress.

4. Support the replacement of current data collection processes that are duplicative, time consuming or poorly coordinated.

5. Move from disconnected tools to an integrated data management toolset.

6. Provide a system compliant with Y2K requirements.

Scope of the IPABS-IS

The IPABS-IS system should:

1. Allow for input, storage, and output of corporate data supporting the EM program.

2. Serve as the single data source for EM's primary business processes.

3. Provide mechanisms to track and relate information in support of a chronological sequence of data updates and outputs during the fiscal year.

4. Support an architecture and design for data synchronization whereby multiple Field Office and Headquarters users requiring access to the same data will receive consistent information.

5. Provide access to information required by EM Headquarters, but not serve as a field project management system.

6. Allow for data input through on-line or batch processing mechanisms. In other words, data input mechanisms should provide for a direct link to a central system, or an ability to update data through other data transfer mechanisms (e.g., FTP transfer of data tables).

7. Have the ability to accept periodic data transfers from related systems at a predetermined schedule through batch processing. Related systems include MARS, CAIRS, ORPS, FIMS, and NMIS.

8. Allow for information output through direct access to a central system, or through verbal requests where support staff can prepare and transmit requested outputs. Support standard and ad hoc reports and queries from either access mechanism.

9. Allow data to be reported at appropriate levels based on organizational need and business function, including the ability to aggregate data or drill down to lower levels of information

(limited by the level of data collection agreed to for the requirement) on an as needed basis. Do not collect the same data at different levels.

10. Provide security and access control for Headquarters and Field users based on an agreed upon change control process.

11. Accommodate a security architecture where Headquarters, Field staff, and stakeholders access information based on user-defined access rights.

12. Provide for a database to be initially populated by data from current systems, including a pre-defined set of historical data.

13. After implementation, retain a complete set of historical data for each fiscal year.

14. Support the needs of EM's business processes for at least the next 5 years.

15. Allow for the future ability to store Congressional question and answer information, linking the information supplied with the relevant site(s) and/or PBS(s).

This page intentionally left blank.

Attachment D

Project Baseline Summary (PBS) List

Attachment D
Project Baseline Summary (PBS) List

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
AL	LANL	AL-RSRP/LANL	Radioactive Source Recovery Program	0163	Non-Defense EM	Post-2006 Completion	EX02A3010
AL	AL Ops	AL002	Albuquerque Misc Programs (WERC, HBCU, ITRD, NSUC, AIP-TX/MO)	0529	Defense ER&WM	Site/Project Completion	EW04AA010
AL	AL Ops	AL003	South Valley Superfund Site	0123	Defense ER&WM	Site/Project Completion	EW04AA020
AL	AL Ops	AL004	New Mexico Agreement in Principle (AIP)	0465	Defense ER&WM	Post-2006 Completion	EW02AA010
AL	LBERI	AL005	Lovelace Biomedical and Environmental Research Institute	0125	Non-Defense EM	Site/Project Completion	EX04A4010
AL	KCP	AL007	Environmental Restoration	0466	Defense ER&WM	Site/Project Completion	EW04A2010
AL	LANL	AL008	Nuclear Material Facility Stabilization R&D	0467	Defense ER&WM	Post-2006 Completion	EW02A3010
AL	LANL	AL009	LANL Environmental Restoration	0562	Defense ER&WM	Post-2006 Completion	EW02A3020
AL	LANL	AL012	LANL Waste Management - Newly Generated Waste	0471	Defense ER&WM	Post-2006 Completion	EW02A3030
AL	LANL	AL013	LANL Waste Management - Legacy Waste	0472	Defense ER&WM	Post-2006 Completion	EW02A3040
AL	Pantex	AL014	Pantex Plant Site Remediation Project	0473	Defense ER&WM	Site/Project Completion	EW04A5010
AL	Pantex	AL015	Pantex Waste Operations	0593	Defense ER&WM	Site/Project Completion	EW04A5020
AL	SNL	AL017	Sandia National Laboratories (SNL) Waste Management	0134	Defense ER&WM	Site/Project Completion	EW04A7010
AL	SNL	AL018	Sandia ER Project	0135	Defense ER&WM	Site/Project Completion	EW04A7020
AL	Pinellas	AL019	Pinellas Plant Close-out and Administration of Post- Employment Benefits	0136	Defense ER&WM	Site/Project Completion	EW04A6010
AL	UMTRA-S	AL020	UMTRA - Surface Remedial Action Project	0475	Non-Defense EM	Site Closure	EX05A8020
AL	GJO	AL021	Maxey Flats Field Management Project	0138	Defense ER&WM	Site/Project Completion	EW04A1010
AL	GJO	AL022	Monticello Projects	0476	Non-Defense EM	Site Closure	EX05A1010
AL	UMTRA-G	AL023	UMTRA Ground Water	0477	Non-Defense EM	Site Closure	EX05A8010
AL	GJO	AL024	GJO All Other Projects	0478	Non-Defense EM	Site Closure	EX05A1020
AL	Pinellas	AL025	Ground water clean-up (Pinellas Plant)	0479	Defense ER&WM	Site/Project Completion	EW04A6020
AL	LANL	AL026	Plutonium/Beryllium Sources	0012	Defense ER&WM	Post-2006 Completion	EW02A3050
AL	LANL	AL028	Nuclear Material Stewardship Project Office	0015	Defense ER&WM	Post-2006 Completion	EW02A3060
CB	WIPP	CAO-1	WIPP Base Operations	0008	Defense ER&WM	Post-2006 Completion	EW02BB010
CB	WIPP	CAO-2	WIPP Disposal Phase Certification and Experimental Program	0009	Defense ER&WM	Post-2006 Completion	EW02BB020
CB	WIPP	CAO-3	WIPP Transportation	0010	Defense ER&WM	Post-2006 Completion	EW02BB030
CB	WIPP	CAO-4	WIPP TRU Waste Sites Integration and Preparation	0011	Defense ER&WM	Post-2006 Completion	EW02BB040
CB	WIPP	CAO-6	WIPP TRU Waste Transportation Privatization	0013	Def EM Privatization	Privatization	EW03BB010

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
CH	Ames	CH-AMESRA	Ames Remedial Actions	0025	Defense ER&WM	Site/Project Completion	EW04C1010
CH	Ames	CH-AMESWO	AMES Waste Operations	0026	Non-Defense EM	Site/Project Completion	EX04C1010
CH	ANL-E	CH-ANLEDD	ANL-E Decontamination & Decommissioning Actions	0003	Non-Defense EM	Site/Project Completion	EX04C2010
CH	ANL-E	CH-ANLEDD-D	ANL-E Decontamination & Decommissioning Actions (Defense)	0082	Defense ER&WM	Site/Project Completion	EW04C2020
CH	ANL-E	CH-ANLEPM	ANL-E Program Management	0001	Non-Defense EM	Site/Project Completion	EX04C2020
CH	ANL-E	CH-ANLEPM-D	ANL-E Program Management (Defense)	0083	Defense ER&WM	Site/Project Completion	EW04C2030
CH	ANL-E	CH-ANLERA	ANL-E Remedial Actions	0002	Non-Defense EM	Site/Project Completion	EX04C2030
CH	ANL-E	CH-ANLERA-D	ANL-E Remedial Actions (Defense)	0076	Defense ER&WM	Site/Project Completion	EW04C2010
CH	ANL-E	CH-ANLEWO	ANL-E Waste Operations	0004	Non-Defense EM	Site/Project Completion	EX04C2040
CH	ANL-W	CH-ANLWRA	ANL-W Remedial Actions	0029	Non-Defense EM	Site/Project Completion	EX04C3010
CH	ANL-W	CH-ANLWWO	ANL-W Waste Operations	0034	Non-Defense EM	Site/Project Completion	EX04C3020
CH	BNL	CH-BRNLBYW	BNL Boneyard Waste	0033	Non-Defense EM	Site/Project Completion	EX04C4010
CH	BNL	CH-BRNLDD	BNL Decontamination and Decommissioning Actions	0007	Non-Defense EM	Site/Project Completion	EX04C4020
CH	BNL	CH-BRNLPM	BNL Program Management	0005	Non-Defense EM	Site/Project Completion	EX04C4030
CH	BNL	CH-BRNLRA	BNL Remedial Actions	0006	Non-Defense EM	Site/Project Completion	EX04C4040
CH	BNL	CH-BRNLWO	BNL Waste Operations	0023	Non-Defense EM	Site/Project Completion	EX04C4050
CH	CH Ops	CH-CHOOPUAB	Princeton Site A/B Payments	0032	Non-Defense EM	Site/Project Completion	EX04CC010
CH	CH Ops	CH-CHOOSA	Site A Cleanup	0031	Non-Defense EM	Site/Project Completion	EX04CC020
CH	CH Ops	CH-CHOOSM	Surveillance and Maintenance Activities	0030	Non-Defense EM	Site/Project Completion	EX04CC030
CH	CH Ops	CH-CHOOSM-D	Surveillance and Maintenance Activities (Defense)	0072	Defense ER&WM	Site/Project Completion	EW04CC010
CH	CH Ops	CH-COPS	Chicago Operations Program Support	0709	Non-Defense EM	Site/Project Completion	EX04CC040
CH	CH Ops	CH-COPS-D	CH Operations Program Support (Defense)	0016	Defense ER&WM	Site/Project Completion	EW04CC020
CH	Fermi	CH-FNALWO	FNAL Waste Operations	0035	Non-Defense EM	Site/Project Completion	none
CH	PPPL	CH-PPPLRA	PPPL Remedial Actions	0027	Non-Defense EM	Site/Project Completion	EX04C5010
CH	PPPL	CH-PPPLWO	PPPL Waste Operations	0028	Non-Defense EM	Site/Project Completion	EX04C5020
D&D Fund Deposit	HQ	HQ-9999-01	Contribution to the Uranium Enrichment D&D Fund	0153	Defense ER&WM	Post-2006 Completion	EW02MM050
EH Health Studies	Health Studies	HQNP-HS01-EH	Health Studies	0069	Defense ER&WM	Post-2006 Completion	n/a
HQ	HQ	HQ-100-AA	Technical Support to ER (Defense)	0147	Defense ER&WM	Post-2006 Completion	EW02MM010
HQ	HQ	HQ-2-00	Technical Support to ER (Non-Def)	0127	Non-Defense EM	Post-2006 Completion	EX02MM010
HQ	HQ	HQ-EM74	Headquarters Program Integration	0149	Defense ER&WM	Post-2006 Completion	EW02MM020
HQ	HQ	HQ-PM-001	Policy & Management	0705	Non-Defense EM	Site/Project Completion	EX04D1020
HQ	HQ	HQ-PRIV	Undistributed Privatization Funding	0126	Def EM Privatization	Privatization	EW0300000

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
HQ	HQ	HQ-WM001	Complex-Wide Waste Management Support and Analyses	0557	Defense ER&WM	Post-2006 Completion	EW02MM030
HQ	HQ	HQ6002	Support to Transition Activities	0556	Defense ER&WM	Post-2006 Completion	EW02MM040
HQ	HQ	HQNP-NCST	Nuclear Criticality Safety Training (DNFSB 97-2)	0068	Defense ER&WM	Post-2006 Completion	EW02MM140
ID	INEEL	ID-CTREXC-101	Low-Level Waste/Mixed Low-Level Waste Center of Excellence	0435	Defense ER&WM	Post-2006 Completion	EW02D1080
ID	INEEL	ID-ER-101	Test Area North Remediation	0164	Defense ER&WM	Site/Project Completion	EW04D1010
ID	INEEL	ID-ER-102	Test Reactor Area Remediation	0165	Defense ER&WM	Post-2006 Completion	EW02D1010
ID	INEEL	ID-ER-103	Idaho Chemical Processing Plant Remediation	0166	Defense ER&WM	Post-2006 Completion	EW02D1020
ID	INEEL	ID-ER-104	Central Facilities Area (CFA) Remediation	0167	Defense ER&WM	Site/Project Completion	EW04D1020
ID	INEEL	ID-ER-105	Power Burst Facility/Auxiliary Reactor Area	0168	Defense ER&WM	Site/Project Completion	EW04D1030
ID	INEEL	ID-ER-106	Radioactive Waste Management Complex Remediation	0563	Defense ER&WM	Post-2006 Completion	EW02D1030
ID	INEEL	ID-ER-107	Pit 9 Remediation	0170	Defense ER&WM	Post-2006 Completion	EW02D1040
ID	INEEL	ID-ER-108	Sitewide Monitoring Area Remediation	0171	Defense ER&WM	Post-2006 Completion	EW02D1050
ID	INEEL	ID-ER-109	Remediation Operations	0172	Defense ER&WM	Post-2006 Completion	EW02D1060
ID	INEEL	ID-ER-110	Decontamination and Decommissioning	0564	Defense ER&WM	Post-2006 Completion	EW02D1070
ID	INEEL	ID-HLW-101	High-Level Waste Pretreatment	0193	Defense ER&WM	Post-2006 Completion	EW02D1090
ID	INEEL	ID-HLW-102	High-Level Waste Immobilization Facility (Privatized)	0449	Def EM Privitization	Privatization	none
ID	INEEL	ID-HLW-103	HLW Treatment and Storage	0565	Defense ER&WM	Post-2006 Completion	EW02D1100
ID	INEEL	ID-HLW-104	Vitrified HLW Storage	0196	Defense ER&WM	Post-2006 Completion	EW02D1110
ID	INEEL	ID-HLW-105	Low Activity Waste Treatment	0450	Defense ER&WM	Post-2006 Completion	EW02D1120
ID	INEEL	ID-LRP-101	Environmental Engineering and Science Center	0218	Defense ER&WM	Post-2006 Completion	EW02D1130
ID	INEEL	ID-LRP-102	Technology Deployment Center Demonstration Facility	0219	Defense ER&WM	Post-2006 Completion	EW02D1140
ID	INEEL	ID-OIM-101	Site Wide Landlord Operations	0566	Defense ER&WM	Post-2006 Completion	EW02D1150
							39EW02D10
ID	INEEL	ID-OIM-102	Idaho Chemical Processing Plant Non-Process Plant Operations	0206	Defense ER&WM	Post-2006 Completion	EW02D1030
ID	INEEL	ID-OIM-103	INEEL Medical Facilities	0207	Defense ER&WM	Site/Project Completion	EW02D1040
ID	INEEL	ID-OIM-104	INEEL Emergency Response Facilities	0208	Defense ER&WM	Site/Project Completion	EW02D1050
ID	INEEL	ID-OIM-105	Security Facilities Consolidation Project	0209	Defense ER&WM	Site/Project Completion	EW02D1060
							39EW02D10

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNF
ID	INEEL	ID-OIM-106	Electrical and Utility Systems Upgrade (EUSU) Project, ICPP	0210	Defense ER&WM	Site/Project Completion	EW02D1070
							39EW02D10
ID	INEEL	ID-OIM-107	INEEL Electrical Distribution Upgrade	0211	Defense ER&WM	Site/Project Completion	EW04D1080
							39EW04D10
ID	INEEL	ID-OIM-108	INEEL Road Rehabilitation	0212	Defense ER&WM	Site/Project Completion	EW04D1090
							39EW04D10
ID	INEEL	ID-OIM-109	Health Physics Instrument Laboratory	0567	Defense ER&WM	Site/Project Completion	EW04D1100
							39EW04D10
ID	INEEL	ID-OIM-110	Pre-FY 2007 Surplus Facility Deactivation Project	0568	Defense ER&WM	Site/Project Completion	EW04D1110
ID	INEEL	ID-OIM-110-N	Pre-FY 2007 Surplus Facility Deactivation Project - Non Defense	0117	Non-Defense EM	Site/Project Completion	EX04D1010
ID	INEEL	ID-OIM-111	Post-FY2006 Surplus Facility Deactivation Projects	0214	Defense ER&WM	Post-2006 Completion	EW02D1170
ID	INEEL	ID-OIM-112	Pre-2007 INEEL Surveillance and Maintenance (S&M)	0215	Defense ER&WM	Site/Project Completion	EW04D1120
ID	INEEL	ID-OIM-112-N	Pre-2007 INEEL Surveillance and Maintenance (S&M) - Non Defense	0121	Non-Defense EM	Site/Project Completion	EX04D1020
ID	INEEL	ID-OIM-113	Post-2006 Surveillance, Maintenance, and Monitoring	0216	Defense ER&WM	Post-2006 Completion	EW02D1180
ID	INEEL	ID-SNF-101	National Spent Nuclear Fuel Program	0175	Defense ER&WM	Post-2006 Completion	EW02D1190
ID	INEEL	ID-SNF-102	Integrated SNF Program	0569	Defense ER&WM	Post-2006 Completion	EW02D1200
ID	INEEL	ID-SNF-103	Emptied SNF Facilities	0177	Defense ER&WM	Post-2006 Completion	EW02D1210
ID	INEEL	ID-SNF-104	Constructed New Facilities	0178	Defense ER&WM	Site/Project Completion	EW04D1130
ID	INEEL	ID-SNF-104-N	Constructed New Facilities - Non Defense	0122	Non-Defense EM	Site/Project Completion	EX04D1030
							39EX04D10
ID	INEEL	ID-SNF-105	Dry Transfer and Storage Project (Privatized)	0448	Def EM Privitization	Privatization	EW03D1010
ID	INEEL	ID-WM-101	INEEL LLW/MLLW/Other Waste Program	0570	Defense ER&WM	Site/Project Completion	EW04D1140
ID	INEEL	ID-WM-102	National LLW Program	0186	Non-Defense EM	Site/Project Completion	EX0461
ID	INEEL	ID-WM-103	INEEL Transuranic Waste	0187	Defense ER&WM	Site/Project Completion	EW04D1160
ID	INEEL	ID-WM-104	AMWTP Asset Acquisition Project (Privatized)	0452	Def EM Privitization	Privatization	EW03D1020
ID	INEEL	ID-WM-105	AMWTP Production Operations	0453	Defense ER&WM	Post-2006 Completion	EW02D1240
ID	INEEL	ID-WM-106	INEEL Site-Wide Environmental Protection	0571	Defense ER&WM	Post-2006 Completion	EW02D1250

Ops/Field Office	SSL	Ops/PBS No	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
ID	INEEL	ID-WM-107	Long Term Treatment/Storage/Disposal Operations	0191	Defense ER&WM	Post-2006 Completion	none
ID	INEEL	ID-WM-108	Integrated Waste Operations Program	0572	Defense ER&WM	Post-2006 Completion	EW02D1260
Multi-Site	Multi-Site	HQ-EM-HQ-001	Emergency Preparedness Program	0561	Defense ER&WM	Post-2006 Completion	EW02MM070
Multi-Site	Multi-Site	HQ-EM75	Environmental & Regulatory Analysis	0150	Defense ER&WM	Post-2006 Completion	EW02MM100
Multi-Site	Multi-Site	HQ-PC-001	PACKAGING CERTIFICATION	0558	Non-Defense EM	Post-2006 Completion	EX02MM120
Multi-Site	Multi-Site	HQ-TMHQ1	Transportation and Packaging Mgmt	0161	Defense ER&WM	Post-2006 Completion	EW02MM060
Multi-Site	Multi-Site	ID-CMP-001	National Analytical Management Program	0148	Defense ER&WM	Post-2006 Completion	EW02MM080
Multi-Site	Multi-Site	OPS/HQ-PP	Pollution Prevention	0154	Defense ER&WM	Post-2006 Completion	EW02MM090
Multi-Site	Multi-Site	OPS/HQ-PP-N	Pollution Prevention - Non-Defense	0066	Non-Defense EM	Post-2006 Completion	EX02MM090
NV	NTS	NV202	AIPs/Grants	0223	Defense ER&WM	Post-2006 Completion	EW02E1010
NV	NTS	NV211	Soils	0224	Defense ER&WM	Post-2006 Completion	EW02E1020
NV	NTS	NV212	Underground Test Area (UGTA)	0225	Defense ER&WM	Post-2006 Completion	EW02E1030
NV	NTS	NV214	Industrial Sites	0226	Defense ER&WM	Post-2006 Completion	EW02E1040
NV	NV Ops	NV240	Off-sites	0227	Defense ER&WM	Post-2006 Completion	EW02EE010
NV	NTS	NV350	TRU/Mixed TRU	0442	Defense ER&WM	Post-2006 Completion	EW02E1050
NV	NTS	NV360	Mixed Low-Level Waste	0444	Defense ER&WM	Post-2006 Completion	EW02E1060
NV	NTS	NV370	Low-Level Waste	0443	Defense ER&WM	Post-2006 Completion	EW02E1070
NV	NTS	NV400	Program Integration	0064	Defense ER&WM	Post-2006 Completion	EW02E1080
OR	ORR	OR-38109	Hazardous Waste Management	0302	Defense ER&WM	Post-2006 Completion	EW02G1010
OR	ORR	OR-38110	Sanitary/Industrial Waste Management	0303	Defense ER&WM	Post-2006 Completion	EW02G1020
							39EW02G10
OR	ORR	OR-38111	Mixed Low Level Waste Management	0581	Defense ER&WM	Post-2006 Completion	EW02G1030
OR	ORR	OR-38112	Low Level Waste Management	0582	Defense ER&WM	Post-2006 Completion	EW02G1040
							39EW02G10
OR	ORR	OR-38113	Transuranic Waste Management	0583	Defense ER&WM	Post-2006 Completion	EW02G1050
OR	ORR	OR-38212	Low Level Waste Management - Non-Defense	0019	Non-Defense EM	Post-2006 Completion	EX02G1040
							39EX02G10
OR	ORR	OR-38902	TRU Waste Privatization	0305	Def EM Privatization	Privatization	EW03G1020
OR	ORR	OR-42101	Y-12 East Fork Poplar Creek Remedial Action	0306	Defense ER&WM	Post-2006 Completion	EW02G1060
OR	ORR	OR-42102	Y-12 Bear Creek Remedial Action	0307	Defense ER&WM	Post-2006 Completion	EW02G1070

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
OR	ORR	OR-43101	ORNL Melton Valley Watershed D&D - Defense	0020	Defense ER&WM	Post-2006 Completion	EW02G1080
OR	ORR	OR-43102	ORNL Melton Valley Watershed Remedial Action - Defense	0021	Defense ER&WM	Post-2006 Completion	EW02G1090
OR	ORR	OR-43103	ORNL Bethel Valley Remedial Action - Defense	0022	Defense ER&WM	Post-2006 Completion	EW02G1100
OR	ORR	OR-43104	ORNL Bethel Valley D&D - Defense	0024	Defense ER&WM	Post-2006 Completion	EW02G1110
OR	ORR	OR-43201	ORNL Melton Valley Watershed D&D	0308	Non-Defense EM	Post-2006 Completion	EX02G1080
OR	ORR	OR-43202	ORNL Melton Valley Watershed Remedial Action	0309	Non-Defense EM	Post-2006 Completion	EX02G1090
OR	ORR	OR-43203	ORNL Bethel Valley Remedial Action	0310	Non-Defense EM	Post-2006 Completion	EX02G1100
OR	ORR	OR-43204	ORNL Bethel Valley D&D	0311	Non-Defense EM	Post-2006 Completion	EX02G1110
OR	ORR	OR-44103	ETTP D&D - Defense	0047	Defense ER&WM	Post-2006 Completion	EW02G1150
OR	ORR	OR-44105	ETTP Landlord - Defense	0045	Defense ER&WM	Post-2006 Completion	EW02G1120
OR	ORR	OR-44301	ETTP Remedial Action	0313	UE D&D Fund	D&D Fund	EU02G1130
OR	ORR	OR-44302	ETTP Process Equipment D&D	0314	UE D&D Fund	D&D Fund	EU02G1140
OR	ORR	OR-44303	ETTP D&D (Fund)	0315	UE D&D Fund	D&D Fund	EU02G1150
OR	ORR	OR-44304	ETTP Facility Safety Upgrades	0712	UE D&D Fund	D&D Fund	EU02G1160
OR	ORR	OR-44305	ETTP Landlord - D&D Fund	0046	UE D&D Fund	D&D Fund	EU02G1120
OR	ORR	OR-44901	On-site Waste Management Facility	0312	Def EM Privatization	Privatization	EW03G1010
OR	Paducah	OR-45301	Paducah Remedial Action	0317	UE D&D Fund	D&D Fund	EU02G2010
OR	Paducah	OR-45302	Paducah Waste Management	0318	UE D&D Fund	D&D Fund	EU02G2020
OR	Portsmouth	OR-46301	Portsmouth Remedial Action	0319	UE D&D Fund	D&D Fund	EU02G3010
OR	Portsmouth	OR-46302	Portsmouth Waste Management	0320	UE D&D Fund	D&D Fund	EU02G3020
OR	WSSRAP	OR-47201	Weldon Spring Disposal Facility	0293	Non-Defense EM	Site Closure	EX05G4010
OR	WSSRAP	OR-47202	Weldon Spring Waste Treatment	0321	Non-Defense EM	Site Closure	EX05G4020
OR	WSSRAP	OR-47203	Weldon Spring Long-Term Surveillance and Maintenance	0322	Non-Defense EM	Site Closure	EX05G4030
OR	ORR	OR-48103	Offsite Remedial Action - Defense	0048	Defense ER&WM	Post-2006 Completion	EW02G1170
OR	OR Ops	OR-48104	Directed Support - Defense	0059	Defense ER&WM	Post-2006 Completion	EW02GG010
OR	ORR	OR-48203	Offsite Remedial Action - Non-Defense	0049	Non-Defense EM	Post-2006 Completion	EX02G1170
OR	OR Ops	OR-48204	Directed Support - Non-Defense	0061	Non-Defense EM	Post-2006 Completion	EX02GG010
OR	ORR	OR-48303	Offsite Remedial Action - D&D Fund	0058	UE D&D Fund	D&D Fund	EU02G1170
OR	OR Ops	OR-48304	Directed Support - D&D Fund	0062	UE D&D Fund	D&D Fund	EU02GG010
OR	ORR	OR-63101	NMFS - Defense	0063	Defense ER&WM	Post-2006 Completion	EW02G1180

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
OR	ORR	OR-63201	NMFS - Non-Defense	0325	Non-Defense EM	Post-2006 Completion	EX02G1180
OK	LLNL	OAK-001	LLNL Main Site Remediation	0200	Defense ER&WM	Site/Project Completion	EW04F6010
OK	ETEC	OAK-007	ETEC Remediation	0263	Non-Defense EM	Site/Project Completion	EX04F1010
OK	ETEC	OAK-009	ETEC Landlord	0265	Non-Defense EM	Site/Project Completion	EX04F1020
OK	LLNL	OAK-041	Accelerated Waste Treatment	0464	Defense ER&WM	Site/Project Completion	EW04F6020
OK	LLNL	OK-002	Lawrence Livermore National Laboratory (LLNL) - Site 300 Remedial Action	0258	Defense ER&WM	Site/Project Completion	EW04F6030
OK	LBNL	OK-003	LBNL Soils and Groundwater (Environmental Restoration)	0260	Non-Defense EM	Site/Project Completion	EX04F4010
OK	LBNL	OK-004	LBNL Hazardous Waste Handling Facility Closure (Environmental Restoration)	0261	Non-Defense EM	Site/Project Completion	EX04F4020
OK	SLAC	OK-005	Stanford Linear accelerator Center (Environmental Restoration)	0262	Non-Defense EM	Site/Project Completion	EX04F7010
OK	LEHR	OK-010	Laboratory for Energy-Related Health Research Environmental Restoration	0267	Non-Defense EM	Site/Project Completion	EX04F5010
OK	GTF	OK-011	Soil Remediation (GTF)	0269	Non-Defense EM	Site/Project Completion	EX04F1010
OK	GA	OK-012	Hot Cell Facility D&D at General Atomics	0271	Non-Defense EM	Site/Project Completion	EX04F2010
OK	GE	OK-013	General Electric D&D (Environmental Restoration)	0461	Non-Defense EM	Site/Project Completion	EX04F3010
OK	LEHR	OK-014	LEHR Waste Management	0275	Non-Defense EM	Site/Project Completion	EX04F5020
OK	LBNL	OK-015	LBNL Legacy Waste	0277	Non-Defense EM	Site/Project Completion	EX04F4030
OK	LBNL	OK-016	LBNL Newly Generated Wastes	0279	Non-Defense EM	Site/Project Completion	EX04F4040
OK	LLNL	OK-021	LLNL Base Program	0462	Defense ER&WM	Site/Project Completion	EW04F6040
OK	LLNL	OK-026	LLNL General Plant Projects	0463	Defense ER&WM	Site/Project Completion	EW04F6050
OK	LLNL	OK-027	LLNL Decontamination and Waste Treatment Facility	0285	Defense ER&WM	Site/Project Completion	EW04F6060
OK	OK Ops	OK-040	Program Management and State Grants	0287	Non-Defense EM	Site/Project Completion	EX04FF020
OK	OK Ops	OK-040-D	Program Management and State Grants (Defense)	0078	Defense ER&WM	Site/Project Completion	EW04FF010
OK	ETEC	OK-042	ETEC Waste Management	0291	Non-Defense EM	Site/Project Completion	EX04F1030
OK	SPRU	SP-SPRU	SPRU	0588	Defense ER&WM	Site/Project Completion	EW04F8010
OH	Ashtabula	OH-AB-01	Remediation	0228	Def Facil Closure	Site Closure	EW05H1010
OH	Ashtabula	OH-AB-02	Project Management, Site Services, ES&H	0229	Def Facil Closure	Site Closure	EW05H1020
OH	Columbus	OH-CL-01	King Avenue Site Decontamination	0230	Non-Defense EM	Site Closure	EX05H2010
OH	Columbus	OH-CL-02	West Jefferson Site Decontamination	0231	Non-Defense EM	Site Closure	EX05H2020
OH	Columbus	OH-CL-02-D	West Jefferson Site Decontamination (Defense Funded)	0017	Def Facil Closure	Site Closure	EW05H2010
OH	Columbus	OH-CL-03	Project Management, Site Support & Maintenance	0521	Non-Defense EM	Site Closure	EX05H2040

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
OH	Columbus	OH-CL-03-D	Project Management, Site Support & Maintenance (Defense)	0079	Def Facil Closure	Site Closure	EW05H2020
OH	Fernald	OH-FN-01	Facility Shutdown	0522	Def Facil Closure	Site Closure	EW05H3010
OH	Fernald	OH-FN-02	Facility D & D	0523	Def Facil Closure	Site Closure	EW05H3020
OH	Fernald	OH-FN-03	On-Site Disposal Facility	0524	Def Facil Closure	Site Closure	EW05H3030
OH	Fernald	OH-FN-04	Aquifer Restoration	0525	Def Facil Closure	Site Closure	EW05H3040
OH	Fernald	OH-FN-05	Waste Pits Remediation Project	0237	Def Facil Closure	Site Closure	EW05H3050
OH	Fernald	OH-FN-06	Soils	0530	Def Facil Closure	Site Closure	EW05H3060
OH	Fernald	OH-FN-07	Silos	0526	Def Facil Closure	Site Closure	EW05H3070
OH	Fernald	OH-FN-08	Nuclear Materials	0239	Def Facil Closure	Site Closure	EW05H3080
OH	Fernald	OH-FN-09	Thorium Materials	0240	Def Facil Closure	Site Closure	EW05H3090
OH	Fernald	OH-FN-10	Mixed Waste	0241	Def Facil Closure	Site Closure	EW05H3100
OH	Fernald	OH-FN-11	Waste Management	0527	Def Facil Closure	Site Closure	EW05H3110
OH	Fernald	OH-FN-12	Program Support & Oversight	0528	Def Facil Closure	Site Closure	EW05H3120
OH	Miamisburg	OH-MB-01	Tritium Operations Transition	0573	Def Facil Closure	Site Closure	EW05H4010
OH	Miamisburg	OH-MB-02	Main Hill Tritium	0574	Def Facil Closure	Site Closure	EW05H4020
OH	Miamisburg	OH-MB-02-N	Main Hill Tritium (Non-Defense Funded)	0018	Non-Defense EM	Site Closure	EX05H4020
OH	Miamisburg	OH-MB-03	Legacy Waste	0246	Def Facil Closure	Site Closure	EW05H4030
OH	Miamisburg	OH-MB-04	Main Hill Rad	0575	Def Facil Closure	Site Closure	EW05H4040
OH	Miamisburg	OH-MB-05	Main Hill Non Rad	0576	Def Facil Closure	Site Closure	EW05H4050
OH	Miamisburg	OH-MB-06	SM/PP Hill	0577	Def Facil Closure	Site Closure	EW05H4060
OH	Miamisburg	OH-MB-07	Test Fire Valley	0578	Def Facil Closure	Site Closure	EW05H4070
OH	Miamisburg	OH-MB-08	Soils	0579	Def Facil Closure	Site Closure	EW05H4080
OH	Miamisburg	OH-MB-09	Facility Operations & Maintenance	0580	Def Facil Closure	Site Closure	EW05H4090
OH	Miamisburg	OH-MB-10	Exit Support Project	0589	Def Facil Closure	Site Closure	EW05H4100
OH	West Valley	OH-WV-01	HLW Vitrification and Tank Heel High Activity Waste Processing	0249	Non-Defense EM	Site Closure	EX05H5010
OH	West Valley	OH-WV-02	Site Transition, Decommissioning, & Project Completion	0250	Non-Defense EM	Site Closure	EX05H5020
OH	West Valley	OH-WV-03	Spent Nuclear Fuel	0251	Non-Defense EM	Site Closure	EX05H5030
OH	West Valley	OH-WV-04	Project Management/Site Support	0252	Non-Defense EM	Site Closure	EX05H5040
Program Direction	Program Dir.	HQ-PD-XX	Program Direction	0703	Defense ER&WM	Program Direction	EW1000000
RL	Hanford	RL-ER01	100 Area Remedial Action	0415	Defense ER&WM	Post-2006 Completion	EW02J1010
RL	Hanford	RL-ER02	200 Area Remedial Action	0416	Defense ER&WM	Post-2006 Completion	EW02J1020
RL	Hanford	RL-ER03	300 Area Remedial Action	0417	Defense ER&WM	Post-2006 Completion	EW02J1030
RL	Hanford	RL-ER04	Environmental Restoration Disposal Facility	0418	Defense ER&WM	Post-2006 Completion	EW02J1040

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
RL	Hanford	RL-ER05	Facility Surveillance & Maintenance - ADS 3500	0419	Defense ER&WM	Post-2006 Completion	EW02J1050
RL	Hanford	RL-ER06	Decontamination and Decommissioning	0420	Defense ER&WM	Post-2006 Completion	EW02J1060
RL	Hanford	RL-ER07	Post Closure Surveillance & Maintenance	0421	Defense ER&WM	Post-2006 Completion	EW02J1070
RL	Hanford	RL-ER08	Groundwater Management	0422	Defense ER&WM	Post-2006 Completion	EW02J1080
RL	Hanford	RL-ER09	N Reactor Deactivation	0423	Defense ER&WM	Site/Project Completion	EW04J1010
RL	Hanford	RL-ER10	Program Management and Support	0424	Defense ER&WM	Post-2006 Completion	EW02J1090
RL	Hanford	RL-HM01	HAMMER	0425	Defense ER&WM	Post-2006 Completion	EW02J1100
RL	Hanford	RL-OT01	MISSION SUPPORT	0426	Defense ER&WM	Post-2006 Completion	EW02J1110
RL	RL Ops	RL-OT04	RL Directed Support	0427	Defense ER&WM	Post-2006 Completion	EW02JJ010
RL	RL Ops	RL-RG01	TWRS Regulatory Unit	0429	Defense ER&WM	Post-2006 Completion	EW02JJ020
RL	RL Ops	RL-ST01	PNNL WASTE MANAGEMENT	0430	Defense ER&WM	Post-2006 Completion	EW02JJ030
RL	Hanford	RL-TP01	B-Plant Sub-Project	0401	Defense ER&WM	Site/Project Completion	EW04J1020
							39EW04J10
RL	Hanford	RL-TP02	WESF Sub-Project	0402	Defense ER&WM	Post-2006 Completion	EW02J1120
RL	Hanford	RL-TP03	PUREX Sub-Project	0403	Defense ER&WM	Site/Project Completion	EW04J1030
RL	Hanford	RL-TP04	300 Area/SNM Sub-Project	0404	Defense ER&WM	Site/Project Completion	EW04J1040
RL	Hanford	RL-TP05	PFP Deactivation	0405	Defense ER&WM	Site/Project Completion	EW04J1050
							39EW04J10
RL	Hanford	RL-TP08	324/327 Facility Transition Project	0408	Defense ER&WM	Site/Project Completion	EW04J1070
RL	Hanford	RL-TP08-N	324/327 Facility Transition Project (Non-Defense)	0080	Non-Defense EM	Site/Project Completion	EX04J1010
RL	Hanford	RL-TP09	K Basin Deactivation	0409	Defense ER&WM	Post-2006 Completion	EW02J1140
RL	Hanford	RL-TP10	Accelerated Deactivation	0410	Defense ER&WM	Site/Project Completion	EW04J1080
RL	Hanford	RL-TP11	Advanced Reactors Transition	0411	Non-Defense EM	Site/Project Completion	EX04J1020
RL	Hanford	RL-TP12	Transition Project Management	0412	Defense ER&WM	Site/Project Completion	EW04J1090
RL	Hanford	RL-TP13	Landlord Project	0413	Defense ER&WM	Post-2006 Completion	EW02J1150
RL	Hanford	RL-TP14	Hanford Surplus Facility Program 300 Area Revitalization Project	0414	Defense ER&WM	Site/Project Completion	EW04J1100
RL	Hanford	RL-TW01	Tank Waste Characterization	0203	Defense ER&WM	Post-2006 Completion	EW02J1160
RL	Hanford	RL-TW02	Tank Safety Issue Resolution Project	0384	Defense ER&WM	Post-2006 Completion	EW02J1170
RL	Hanford	RL-TW03	Tank Farms Operations	0385	Defense ER&WM	Post-2006 Completion	EW02J1180
							39EW02J10
RL	Hanford	RL-TW04	Retrieval Project	0386	Defense ER&WM	Post-2006 Completion	EW02J1190
							39EW02J10
RL	Hanford	RL-TW05	Process Waste Support	0387	Defense ER&WM	Post-2006 Completion	EW02J1200

Ops/Field Office	SSL	Ops/PBS No	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
RL	Hanford	RL-TW06	Process Waste Privatization Phase I	0388	Def EM Privatization	Privatization	EW03J1010
RL	Hanford	RL-TW07	Process Waste Privatization Phase II	0389	Def EM Privatization	Privatization	none yet
RL	Hanford	RL-TW08	Process Waste Privatization Infrastructure	0390	Defense ER&WM	Post-2006 Completion	EW02J1210
RL	Hanford	RL-TW09	Immobilized Tank Waste Storage & Disposal Project	0391	Defense ER&WM	Post-2006 Completion	EW02J1220
							39EW02J10
RL	Hanford	RL-TW10	TWRS Management Support	0392	Defense ER&WM	Post-2006 Completion	EW02J1230
RL	Hanford	RL-VZ01	Site-wide Groundwater/VADOS Zone Integration Project	0084	Defense ER&WM	Post-2006 Completion	EW02J1290
RL	Hanford	RL-WM01	Spent Nuclear Fuels Project	0393	Defense ER&WM	Site/Project Completion	EW04J1110
							39EW04J10
RL	Hanford	RL-WM02	Canister Storage Building Operations	0394	Defense ER&WM	Post-2006 Completion	EW02J1240
RL	Hanford	RL-WM03	Solid Waste Storage and Disposal	0395	Defense ER&WM	Post-2006 Completion	EW02J1250
RL	Hanford	RL-WM04	Solid Waste Treatment	0396	Defense ER&WM	Post-2006 Completion	EW02J1260
							39EW02J10
RL	Hanford	RL-WM05	Liquid Effluents Project	0397	Defense ER&WM	Post-2006 Completion	EW02J1270
RL	Hanford	RL-WM06	Analytical Services	0398	Defense ER&WM	Post-2006 Completion	EW02J1280
							39EW02J10
RF	RFETS	RF001	Buffer Zone Closure Project	0202	Def Facil Closure	Site Closure	EW05K1010
RF	RFETS	RF002	Waste Management Project	0584	Def Facil Closure	Site Closure	EW05K1020
RF	RFETS	RF003	Remediation Waste & Contingent Storage Project	0329	Def Facil Closure	Site Closure	EW05K1030
RF	RFETS	RF004	SNM Capital Support Project	0331	Def Facil Closure	Site Closure	EW05K1040
RF	RFETS	RF005	IAEA Project	0333	Def Facil Closure	Site Closure	EW05K1050
RF	RFETS	RF006	SNM Consolidation Project	0335	Def Facil Closure	Site Closure	EW05K1060
RF	RFETS	RF008	Pu Metals and Oxides Stabilization	0339	Def Facil Closure	Site Closure	EW05K1080
RF	RFETS	RF009	Pu Solid Residue Stabilization Project	0341	Def Facil Closure	Site Closure	EW05K1090
RF	RFETS	RF010	Pu Liquid Stabilization	0343	Def Facil Closure	Site Closure	EW05K1100
RF	RFETS	RF011	Uranium Disposition Project	0345	Def Facil Closure	Site Closure	EW05K1110
RF	RFETS	RF012	SNM Shipping Project	0347	Def Facil Closure	Site Closure	EW05K1120
RF	RFETS	RF013	Closure Caps Project	0349	Def Facil Closure	Site Closure	EW05K1130
RF	RFETS	RF014	Industrial Zone Closure Project	0351	Def Facil Closure	Site Closure	EW05K1140
RF	RFETS	RF015	Miscellaneous Production Zone Cluster Closure Project	0585	Def Facil Closure	Site Closure	EW05K1150

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
RF	RFETS	RF016	Building 371 Cluster Closure Project	0355	Def Facil Closure	Site Closure	EW05K1160
RF	RFETS	RF017	Building 707/750 Cluster Closure Project	0357	Def Facil Closure	Site Closure	EW05K1170
RF	RFETS	RF018	Building 771/774 Cluster Closure Project	0359	Def Facil Closure	Site Closure	EW05K1180
RF	RFETS	RF019	Building 776/777 Cluster Closure Project	0361	Def Facil Closure	Site Closure	EW05K1190
RF	RFETS	RF020	Building 881 Cluster Closure Project	0363	Def Facil Closure	Site Closure	EW05K1200
RF	RFETS	RF021	Building 991 Cluster Closure Project	0365	Def Facil Closure	Site Closure	EW05K1210
RF	RFETS	RF022	Building 779 Cluster Closure Project	0586	Def Facil Closure	Site Closure	EW05K1220
RF	RFETS	RF023	Utilities & Infrastructure Project	0436	Def Facil Closure	Site Closure	EW05K1230
RF	RFETS	RF024	Safeguards and Security Project	0369	Def Facil Closure	Site Closure	EW05K1240
RF	RFETS	RF025	Infrastucture Improvement/Replacement Project	0371	Def Facil Closure	Site Closure	EW05K1250
RF	RFETS	RF027	Analytical Services Project	0375	Def Facil Closure	Site Closure	EW05K1270
RF	RFETS	RF029	Rocky Flats Field Office - DOE Management	0621	Def Facil Closure	Site Closure	EW05K1290
RF	RFETS	RF030	K-H Project Management	0380	Def Facil Closure	Site Closure	EW05K1300
RF	RFETS	RF034	Management Project	0065	Def Facil Closure	Site Closure	EW05K1340
SR	SRS	SR-DO01	DOE Projects Line Item	0110	Defense ER&WM	Post-2006 Completion	EW04L1010
SR	SRS	SR-DO02	WSI Landlord Project	0113	Defense ER&WM	Post-2006 Completion	EW02L1010
SR	SRS	SR-DO03	Savannah River Natural Resource Management & Research Institute	0114	Defense ER&WM	Post-2006 Completion	EW02L1020
SR	SRS	SR-DO04	Ecology Lab Project	0115	Defense ER&WM	Post-2006 Completion	EW02L1030
SR	SR Ops	SR-DO05	DOE External Program Support	0116	Defense ER&WM	Post-2006 Completion	EW02LL010
SR	SR Ops	SR-DO07	DOE Program Support	0118	Defense ER&WM	Post-2006 Completion	EW02LL020
SR	SRS	SR-ER01	Flood Plain Swamp Project	0051	Defense ER&WM	Post-2006 Completion	EW02L1040
SR	SRS	SR-ER02	Four Mile Branch Project	0052	Defense ER&WM	Post-2006 Completion	EW02L1050
SR	SRS	SR-ER03	Lower Three Runs & Operations Project	0053	Defense ER&WM	Post-2006 Completion	EW02L1060
SR	SRS	SR-ER04	Pen Branch Project	0054	Defense ER&WM	Post-2006 Completion	EW02L1070
SR	SRS	SR-ER05	Steel Creek Project	0055	Defense ER&WM	Post-2006 Completion	EW02L1080
SR	SRS	SR-ER06	Upper Three Runs Project	0056	Defense ER&WM	Post-2006 Completion	EW02L1090
SR	SRS	SR-ER07	Program Management	0057	Defense ER&WM	Post-2006 Completion	EW02L1100
SR	SRS	SR-ER08	Facility Disposition Program Planning	0485	Defense ER&WM	Post-2006 Completion	EW02L1110
SR	SRS	SR-ER09	HWCTR Projects	0486	Non-Defense EM	Post-2006 Completion	EX02L1010
SR	SRS	SR-FA01	247-F Deactivation Project	0498	Defense ER&WM	Post-2006 Completion	none
SR	SRS	SR-FA02	F Canyon Deactivation Project	0499	Defense ER&WM	Post-2006 Completion	EW02L1120
SR	SRS	SR-FA03	FB Line Deactivation Project	0500	Defense ER&WM	Post-2006 Completion	EW02L1130

Ops/Field Office	SSL	Ops/PBS No.	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
SR	SRS	SR-FA04	H Canyon Deactivation Project	0501	Defense ER&WM	Post-2006 Completion	EW02L1140
SR	SRS	SR-FA05	HB Line Deactivation Project	0502	Defense ER&WM	Post-2006 Completion	EW02L1150
SR	SRS	SR-FA06	235-F Deactivation Project	0503	Defense ER&WM	Post-2006 Completion	EW02L1160
SR	SRS	SR-FA07	Old HB Line Deactivation Project	0504	Defense ER&WM	Post-2006 Completion	EW02L1170
SR	SRS	SR-FA08	P Reactor Deactivation Project	0505	Defense ER&WM	Post-2006 Completion	EW02L1180
SR	SRS	SR-FA09	C Reactor Deactivation Project	0506	Defense ER&WM	Post-2006 Completion	EW02L1190
SR	SRS	SR-FA10	R Reactor Deactivation Project	0507	Defense ER&WM	Post-2006 Completion	EW02L1200
SR	SRS	SR-FA11	K Reactor Deactivation Project	0508	Defense ER&WM	Post-2006 Completion	EW02L1210
SR	SRS	SR-FA12	L Reactor Deactivation Project	0509	Defense ER&WM	Post-2006 Completion	EW02L1220
SR	SRS	SR-FA13	RBOF Deactivation Project	0510	Defense ER&WM	Post-2006 Completion	EW02L1230
SR	SRS	SR-FA14	D Area Deactivation Project	0511	Defense ER&WM	Post-2006 Completion	EW02L1240
SR	SRS	SR-FA15	M Area Deactivation Project	0512	Defense ER&WM	Post-2006 Completion	EW02L1250
SR	SRS	SR-FA16	F-Area Monitoring	0513	Defense ER&WM	Post-2006 Completion	EW02L1260
SR	SRS	SR-FA17	H-Area Monitoring and Minor Facility Monitoring	0514	Defense ER&WM	Post-2006 Completion	EW02L1270
SR	SRS	SR-FA18	M Area Monitoring Project	0515	Defense ER&WM	Post-2006 Completion	EW02L1280
SR	SRS	SR-FA19	D Area Monitoring Project	0516	Defense ER&WM	Post-2006 Completion	EW02L1290
SR	SRS	SR-FA20	Reactors Monitoring Project	0517	Defense ER&WM	Post-2006 Completion	EW02L1300
SR	SRS	SR-FA21	Heavy Water Storage Monitoring	0518	Defense ER&WM	Post-2006 Completion	none
SR	SRS	SR-FA22	RBOF Monitoring Project	0519	Defense ER&WM	Post-2006 Completion	EW02L1310
SR	SRS	SR-HL01	H-Tank Farm	0036	Defense ER&WM	Post-2006 Completion	EW02L1320
							39EW02L10
SR	SRS	SR-HL02	F-Tank Farm	0037	Defense ER&WM	Post-2006 Completion	EW02L1330
SR	SRS	SR-HL03	Waste Removal Operations and Tank Closure	0038	Defense ER&WM	Post-2006 Completion	EW02L1340
SR	SRS	SR-HL04	ITP/ESP/LW Operations	0039	Defense ER&WM	Post-2006 Completion	EW02L1350
SR	SRS	SR-HL05	Vitrification	0040	Defense ER&WM	Post-2006 Completion	EW02L1360
SR	SRS	SR-HL06	Glass Waste Storage	0041	Defense ER&WM	Post-2006 Completion	EW02L1370
SR	SRS	SR-HL07	Effluent Treatment Facility	0042	Defense ER&WM	Post-2006 Completion	EW02L1380
SR	SRS	SR-HL08	Saltstone	0043	Defense ER&WM	Post-2006 Completion	EW02L1390
SR	SRS	SR-HL09	Tank Farm Service Upgrades	0119	Defense ER&WM	Site/Project Completion	EW04L1020
							39EW04L10
SR	SRS	SR-HL10	H-Tank Farm Storm Water System Upgrades	0590	Defense ER&WM	Site/Project Completion	EW04L1030
							39EW04L10
SR	SRS	SR-HL11	Tank Farm Support Services F Area	0591	Defense ER&WM	Site/Project Completion	EW04L1040
							39EW04L10

Ops/Field Office	SSE	Ops/PBS No	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
SR	SRS	SR-HL12	HLW Removal	0592	Defense ER&WM	Post-2006 Completion	EW02L1400
							39EW02L10
SR	SRS	SR-HL13	Salt Disposition	0085	Defense ER&WM	Post-2006 Completion	EW02L1560
SR	SRS	SR-IN01	Plantwide Fire Protection Line Item	0100	Defense ER&WM	Site/Project Completion	EW04L1050
SR	SRS	SR-IN02	Operations Support Facility Line Item	0101	Defense ER&WM	Site/Project Completion	EW04L1060
SR	SRS	SR-IN03	Plant Maintenance Line Item	0102	Defense ER&WM	Site/Project Completion	EW04L1070
SR	SRS	SR-IN04	Domestic Water Line Item	0103	Defense ER&WM	Site/Project Completion	EW04L1080
SR	SRS	SR-IN05	CFC HVAC Chiller Retrofit	0104	Defense ER&WM	Site/Project Completion	EW04L1090
							39EW04L10
SR	SRS	SR-IN06	Radio Trunking System Line Item	0105	Defense ER&WM	Site/Project Completion	EW04L1100
SR	SRS	SR-IN07	Site Road Infrastructure Line Item	0106	Defense ER&WM	Site/Project Completion	EW04L1110
							39EW04L10
SR	SRS	SR-IN08	High Level Drain Lines Line Item	0107	Defense ER&WM	Site/Project Completion	EW04L1120
SR	SRS	SR-IN09	Health Physics Support Line Item	0108	Defense ER&WM	Site/Project Completion	EW04L1130
SR	SRS	SR-IN10	Regulatory Monitoring and Bioassay Laboratory	0109	Defense ER&WM	Site/Project Completion	EW04L1140
							39EW04L10
SR	SRS	SR-IN11	Infrastructure Line Item	0111	Defense ER&WM	Post-2006 Completion	EW02L1410
SR	SRS	SR-IN12	Operating Projects	0112	Defense ER&WM	Post-2006 Completion	EW02L1420
SR	SRS	SR-IN13	Decontamination of Laboratory Facilities, 772-F & 773-A	0120	Defense ER&WM	Site/Project Completion	EW04L1150
SR	SRS	SR-NM01	F-Area Stabilization Project	0487	Defense ER&WM	Site/Project Completion	EW04L1160
SR	SRS	SR-NM02	H-Area Stabilization Project	0488	Defense ER&WM	Site/Project Completion	EW04L1170
SR	SRS	SR-NM03	Nuclear Material Storage Line Item	0489	Defense ER&WM	Site/Project Completion	EW04L1180
							39EW04L10
SR	SRS	SR-NM04	Canyon Exhaust Line Item	0490	Defense ER&WM	Site/Project Completion	EW04L1190
							39EW04L10
SR	SRS	SR-NM05	Neptunium (Np) Vitrification Line Item	0491	Defense ER&WM	Site/Project Completion	none
SR	SRS	SR-NM06	Nuclear Material Storage Operations	0492	Defense ER&WM	Post-2006 Completion	EW02L1430
SR	SRS	SR-NM07	Depleted Uranium Storage	0493	Defense ER&WM	Post-2006 Completion	EW02L1440
SR	SRS	SR-SF01	K-Reactor Spent Nuclear Fuel Project	0494	Defense ER&WM	Site/Project Completion	EW04L1210
SR	SRS	SR-SF02	L-Reactor Spent Nuclear Fuel Project	0495	Defense ER&WM	Post-2006 Completion	EW02L1450
SR	SRS	SR-SF03	RBOF Spent Nuclear Fuel Project	0496	Defense ER&WM	Post-2006 Completion	EW02L1460
SR	SRS	SR-SF04	Heavy Water - D Area	0587	Defense ER&WM	Site/Project Completion	EW04L1220
SR	SRS	SR-SF06	Alternate Technology Project	0073	Defense ER&WM	Site/Project Completion	EW04L1230
SR	SRS	SR-SF07	Disassembly Basin Upgrade Line Item	0074	Defense ER&WM	Site/Project Completion	EW04L1240

Ops/Field Office	SSL	Ops/PBS No	PBS Title	HQ Code	APPROPRIAT	PROGRAM	BNR
SR	SRS	SR-SF09	Spent Nuclear Fuel Treatment and Storage	0497	Defense ER&WM	Post-2006 Completion	EW02L1550
							39EW02L10
SR	SRS	SR-SF09-PR	Spent Nuclear Fuel Treatment and Storage - Privatization	0081	EM Privatization	Privatization	none
SR	SRS	SR-SF10	RBOF Process Support System Refurbishment	0077	Defense ER&WM	Site/Project Completion	none
SR	SRS	SR-SW01	Consolidated Incinerator Facility	0044	Defense ER&WM	Post-2006 Completion	EW02L1480
SR	SRS	SR-SW02	Transuranic Waste Project	0480	Defense ER&WM	Post-2006 Completion	EW02L1490
SR	SRS	SR-SW03	Mixed Low Level Waste Project	0481	Defense ER&WM	Post-2006 Completion	EW02L1500
SR	SRS	SR-SW04	Low Level Waste Project	0482	Defense ER&WM	Post-2006 Completion	EW02L1510
SR	SRS	SR-SW05	Hazardous Waste Project	0483	Defense ER&WM	Post-2006 Completion	EW02L1520
SR	SRS	SR-SW06	Sanitary Waste Project	0484	Defense ER&WM	Post-2006 Completion	EW02L1530
SR	SRS	SR-SW07	Pollution Prevention	0050	Defense ER&WM	Post-2006 Completion	EW02L1540
Science & Tech	S&T	HQ-TD-001	National Science and Technology Development	0156	Defense ER&WM	Science &Technology	EW4000000
Science & Tech	S&T	HQRP001	National Risk Program	0157	Defense ER&WM	Science & Technology	EW4000000
Science & Tech	S&T	HQSP001	Environmental Management Science Program	0159	Defense ER&WM	Science & Technology	EW4000000
Uranium & Thor	HQ	HQ-4000	Reimbursements to Uranium and Thorium Licensees under Title X of the Energy Policy Act of 1992	0446	UE D&D Fund	D&D Fund	EU02MM130

This page intentionally left blank.

Attachment E

Site Requests for Project Changes

Attachment E
Site Requests for Project Changes

The PBS framework allows EM to provide accurate, consistent, and defensible data. The "projectized" PBS system that EM has instituted with the support of Operations/Field Offices is the basis for planning, budgeting, and execution in EM. Maintaining a consistent list of PBSs is essential. There may be cases where sites want to change the PBS structure.

Requests for PBS changes must be submitted to Headquarters no later than January 29, 1999. A decision on whether to grant the request will be rendered by Headquarters within four weeks of receipt of the request. Approval requires EM-20, EM-70, and Site Lead Deputy Assistant Secretary concurrence. Any requests received after January 29th require EM-1 approval and may be subject to additional requirements.

What should be included in the Request?

To initiate a PBS change, Operations/Field Offices are required to complete the Project Baseline Summary Change Request form shown below. The requests for changes to PBSs must begin with a description of why the existing PBS structure must be changed. This description should discuss the particulars of any scope changes that necessitate a new PBS, or the fundamental reasons that a new PBS structure would improve project management at the site, and improve overall efficiency.

The description of the reasoning behind the request for changes should be followed by a description of how the PBS changes will be implemented. In order to maintain continuity of the EM cleanup mission, Headquarters must be notified of how the managing Operations/Field Office plans on distributing and reconciling historical data with the current PBS. A specific list of data that must be crosswalked will be provided by Headquarters.

For example, in cases where a site is requesting that two related PBSs be combined to form a new single PBS, data for the source PBSs will need to be attributed to the new single PBS. In addition, in cases where a PBS will be broken into multiple PBSs, the data elements from the original PBS must be broken out into the new PBSs. The totals should remain unchanged, if the scope does not change.

New PBSs may be approved in cases where additional work scope is required, and would be best managed as a separate project (e.g., cases where a new facility needs to be constructed). If the creation of a new PBS has an effect on existing PBSs (e.g., a shift in baseline dollars, milestones, or attributed facilities, etc.), those changes will need to be identified.

Steps Following Approval

Once a PBS change has been approved by Headquarters, the site must prepare documentation to make the new PBS consistent with the previously existing PBS framework. **ALL** data elements from the original PBSs should appear in the revised PBS structure. The new baseline cost figures should be mapped to the original PBSs, along with a narrative of the changes so that

Headquarters can trace the changes made. If the creation of new PBSs has an effect on existing PBSs, the necessary changes to all affected PBSs must be made.

PROJECT BASELINE SUMMARY CHANGE REQUEST
FY 2001 Budget Formulation Cycle
_____ Operations/Field Office

Date:_____ (to be submitted no later than 1/29/99)

The _____Operations/Field Office is requesting the following change to its project baseline summary(ies).

Justification:

Requested Implementation Time Frame:

FY ___ Execution Year
BY ___ Budget Year (FY2000)
BY+1 __ Budget Outyear (FY2001)

___Crosswalk Attached (This crosswalk enables EM-23 to accurately move the funds from the old PBS(s) to the new PBS(s), as well as maintain accurate records regarding funding transfers between projects.

Operations/Field Office Approval: _____ (AMEM)

==========

HEADQUARTERS APPROVAL:[1]

_____ Director, Office of Budget, EM-23

_____ DAS for Planning, Policy & Budget, EM-20

_____ DAS for Site Operations, EM-70

_____ Site Team Lead

_____ Cognizant Site DAS

[1] Approval based on the assumption that the operations/field office will follow up in the next *Paths to Closure* update with appropriate documentation.

This page intentionally left blank.

Attachment F

Geographic Site List

Attachment F
Geographic Site List

The following tables list 134 geographic sites (including the Waste Isolation Pilot Plant) that EM has historically included in its scope. Following are five tables:

1. Sites Completed Prior to 1997 (Table C.1)

   23 FUSRAP[2] sites
   16 UMTRA[3] sites (long-term surveillance and monitoring and groundwater monitoring as required included in Paths to Closure)
   11 Other sites (long-term surveillance and monitoring as required included in Paths to Closure)

   50 total sites completed prior to 1997

2. Sites Completed in 1997 (Table C.2)

   2 FUSRAP sites
   4 UMTRA sites (included in Paths to Closure)
   4 Other sites (included in Paths to Closure)

   10 total sites completed in 1997

3. Sites Transferred to the United States Army Corps of Engineers (Table C.3)

   21 FUSRAP Sites

   21 total sites transferred to the United States Army Corps of Engineers

4. Sites Completed in 1998 (Table C.4)

   2 UMTRA sites (completed)
   2 UMTRA sites (delisted)
   1 Other Site

   3 total sites completed in 1998
   2 total sites delisted

5. Sites remaining as of the beginning of FY 1999 (Table C.5)

   0 FUSRAP sites
   0 UMTRA sites
   48 other sites

   53 total sites remaining

---

[2] Formerly Utilized Remedial Action Program

[3] Uranium Mill Tailings Remedial Action

Table C.1 Sites Completed Prior to 1997

State	Operations/ Field Office	Site	Completion Date
Alaska	Nevada	Project Chariot (Nevada Offsite)	completed
Arizona	Albuquerque	Monument Valley (UMTRA site)	completed
Arizona	Albuquerque	Tuba City (UMTRA site)	completed
California	Albuquerque	Oxnard Facility	completed
California	Albuquerque	Salton Sea Test Base	completed
California	Oak Ridge	University of California (FUSRAP site)	completed
Colorado	Albuquerque	Durango (UMTRA site)	completed
Colorado	Albuquerque	Grand Junction Mill Tailings Site (UMTRA site)	completed
Colorado	Albuquerque	Gunnison (UMTRA site)	completed
Connecticut	Oak Ridge	Seymour Specialty Wire (FUSRAP site)	completed
Florida	Albuquerque	Peak Oil PRP Participation	completed
Hawaii	Albuquerque	Kauai Test Facility	completed
Idaho	Albuquerque	Lowman (UMTRA site)	completed
Illinois	Oak Ridge	Granite City Steel (FUSRAP site)	completed
Illinois	Oak Ridge	National Guard Armory (FUSRAP site)	completed
Illinois	Oak Ridge	University of Chicago (FUSRAP site)	completed
Massachusetts	Oak Ridge	Chapman Valve (FUSRAP site)	completed
Michigan	Oak Ridge	General Motors (FUSRAP site)	completed
Nebraska	Chicago	Hallam Nuclear Power Facility	completed
New Jersey	Oak Ridge	Kellex/Pierpont (FUSRAP)	completed
New Jersey	Oak Ridge	Middlesex Municipal Landfill (FUSRAP site)	completed
New Mexico	Oak Ridge	Acid/Pueblo Canyons (FUSRAP site)	completed
New Mexico	Albuquerque	Ambrosia Lake (UMTRA site)	completed
New Mexico	Oak Ridge	Bayo Canyon (FUSRAP site)	completed
New Mexico	Oak Ridge	Chupadera Mesa (FUSRAP site)	completed
New Mexico	Albuquerque	Holloman AFB	completed
New Mexico	Albuquerque	Pagano Salvage Yard	completed
New Mexico	Albuquerque	Shiprock (UMTRA site)	completed
New Mexico	Albuquerque	South Valley Superfund Site	completed
New York	Oak Ridge	Baker and Williams Warehouses (FUSRAP site)	completed
New York	Oak Ridge	Niagara Falls Storage Site Vicinity Properties (FUSRAP site)	completed
Ohio	Oak Ridge	Alba Craft (FUSRAP site)	completed
Ohio	Oak Ridge	Associate Aircraft (FUSRAP site)	completed
Ohio	Oak Ridge	B&T Metals (FUSRAP site)	completed
Ohio	Oak Ridge	Baker Brothers (FUSRAP site)	completed
Ohio	Oak Ridge	Herring-Hall Marvin Safe Company (FUSRAP site)	completed
Ohio	Chicago	Piqua, Ohio Site	completed
Oregon	Oak Ridge	Albany Research Center (FUSRAP site)	completed
Oregon	Albuquerque	Lakeview (UMTRA site)	completed
Pennsylvania	Oak Ridge	Aliquippa Forge (FUSRAP site)	completed

State	Operations/ Field Office	Site	Completion Date
Pennsylvania	Oak Ridge	C.H. Schnoor (FUSRAP site)	completed
Pennsylvania	Albuquerque	Canonsburg (UMTRA site)	completed
Tennessee	Oak Ridge	Elza Gate (FUSRAP site)	completed
Tennessee	Oak Ridge	Oak Ridge Associated Universities (ORAU)	completed
Texas	Albuquerque	Falls City (UMTRA site)	completed
Utah	Albuquerque	Green River (UMTRA site)	completed
Utah	Albuquerque	Mexican Hat (UMTRA site)	completed
Utah	Albuquerque	Salt Lake City (UMTRA site)	completed
Wyoming	Albuquerque	Riverton (UMTRA site)	completed
Wyoming	Albuquerque	Spook (UMTRA site)	completed

Table C.2 Sites Completed in 1997

State	Operations/ Field Office	Site	Completion Date
California	Oakland	Geothermal Test Facility	1997
Colorado	Albuquerque	New Rifle (UMTRA site)	1997
Colorado	Albuquerque	Old Rifle (UMTRA site)	1997
Colorado	Albuquerque	Slick Rock Old North Continent (UMTRA site)	1997
Colorado	Albuquerque	Slick Rock Union Carbide (UMTRA site)	1997
Florida	Albuquerque	Pinellas Plant	1997
Illinois	Chicago	Fermi National Accelerator Laboratory	1997
Illinois	Chicago	Site A	1997
Massachusetts	Oak Ridge	Ventron (FUSRAP site)	1997
New Jersey	Oak Ridge	New Brunswick Site (FUSRAP site)	1997

Table C.3 Sites Transferred to the United States Army Corps of Engineers

State	Operations/ Field Office	Site	Completion Date
Connecticut	Oak Ridge	Combustion Engineering (FUSRAP site)	transferred
Illinois	Oak Ridge	Madison (FUSRAP site)	transferred
Maryland	Oak Ridge	W.R. Grace & Company (FUSRAP site)	transferred
Massachusetts	Oak Ridge	Shpack Landfill (FUSRAP site)	transferred
Missouri	Oak Ridge	Latty Avenue Properties (FUSRAP site)	transferred
Missouri	Oak Ridge	St. Louis Airport Site (FUSRAP site)	transferred
Missouri	Oak Ridge	St. Louis Airport Site (Vicinity Properties) (FUSRAP site)	transferred
Missouri	Oak Ridge	St. Louis Downtown Site (FUSRAP site)	transferred
New Jersey	Oak Ridge	DuPont & Company (FUSRAP site)	transferred
New Jersey	Oak Ridge	Maywood (FUSRAP site)	transferred
New Jersey	Oak Ridge	Middlesex Sampling Plant (FUSRAP site)	transferred
New Jersey	Oak Ridge	Wayne (FUSRAP site)	transferred
New York	Oak Ridge	Ashland 1 (FUSRAP site)	transferred
New York	Oak Ridge	Ashland 2 (FUSRAP site)	transferred
New York	Oak Ridge	Bliss & Laughlin Steel (FUSRAP site)	transferred
New York	Oak Ridge	Colonie (FUSRAP site)	transferred
New York	Oak Ridge	Linde Air Products (FUSRAP site)	transferred
New York	Oak Ridge	Niagara Falls Storage Site (FUSRAP site)	transferred
New York	Oak Ridge	Seaway Industrial Park (FUSRAP site)	transferred
Ohio	Oak Ridge	Luckey (FUSRAP site)	transferred
Ohio	Oak Ridge	Painesville (FUSRAP site)	transferred

Table C.4 Sites Completed in 1998

State	Operations/ Field Office	Site	Completion Date
Colorado	Albuquerque	Maybell (UMTRA site)	1998
Colorado	Albuquerque	Naturita (UMTRA site)	1998
North Dakota	Albuquerque	Belfield (UMTRA site)	Delisted[4]
North Dakota	Albuquerque	Bowman (UMTRA site)	Delisted
Puerto Rico	Oak Ridge	Center for Energy and Environmental Research	1998

[4] Designation of this site under the Uranium Mill Tailings Radiation Control Act was revoked May 1998; i.e., DOE's authority for this site was terminated using an administrative procedure.

Table C.5 Sites with Ongoing EM Cleanup/Waste Management Activities

State	Operations/ Field Office	Site	Completion Date
Alaska	Nevada	Amchitka Island (Nevada Offsite)	2001
California	Albuquerque	Sandia National Laboratories - California	1999
California	Oakland	General Atomics Site	2000
California	Oakland	General Electric Vallecitos Nuclear Center	2005
California	Oakland	Laboratory for Energy Related Health Research	2002
California	Oakland	Lawrence Berkeley Laboratory	2003
California	Oakland	Lawrence Livermore National Laboratory Main Site	2006
California	Oakland	Lawrence Livermore National Laboratory Site 300	2006
California	Oakland	Energy Technology Engineering Center	2006
California	Oakland	Stanford Linear Accelerator Center	2000
Colorado	Albuquerque	Grand Junction Office Site	2002
Colorado	Nevada	Rio Blanco (Nevada Offsite)	2005
Colorado	Nevada	Rulison (Nevada Offsite)	1998[5]
Colorado	Rocky Flats	Rocky Flats Environmental Technology Site	2010/2006
Idaho	Chicago	Argonne National Laboratory - West	2000
Idaho	Idaho	Idaho National Engineering and Environmental Laboratory	2050
Illinois	Chicago	Argonne National Laboratory - East	2002
Iowa	Chicago	Ames Laboratory	1999
Kentucky	Albuquerque	Maxey Flats Disposal Site	2002
Kentucky	Oak Ridge	Paducah Gaseous Diffusion Plant	2010
Mississippi	Nevada	Salmon Site (Nevada Offsite)	1999
Missouri	Albuquerque	Kansas City Plant	1999
Missouri	Oak Ridge	Weldon Spring Site	2002
Nevada	Nevada	Central Nevada Test Site	2006
Nevada	Nevada	Nevada Test Site	2014[6]
Nevada	Nevada	Shoal Site (Nevada Offsite)	2004
Nevada	Nevada	Tonopah Test Range Area	2007
New Jersey	Chicago	Princeton Plasma Physics Laboratory	1999
New Mexico	Nevada	Gasbuggy (Nevada Offsite)	2005
New Mexico	Nevada	Gnome-Coach (Nevada Offsite)	2004
New Mexico	Albuquerque	Lovelace Respiratory Research Institute	2000
New Mexico	Albuquerque	Los Alamos National Laboratory	2017
New Mexico	Albuquerque	Sandia National Laboratories - NM	2001

5 Now scheduled for 1999

6 Although the Nevada Test Site mission will be complete in 2014, it will be open to receive low-level waste from other sites through 2070.

State	Operations/ Field Office	Site	Completion Date
New Mexico	Carlsbad	Waste Isolation Pilot Plant	2038
New York	Chicago	Brookhaven National Laboratory	2006
New York	Oakland	Separations Process Research Unit (SPRU)	2014
New York	Ohio	West Valley Demonstration Project	2005
Ohio	Ohio	Columbus Environmental Management Project - King Avenue	1998[7]
Ohio	Ohio	Columbus Environmental Management Project - West Jefferson	2005
Ohio	Ohio	Fernald Environmental Management Project	2008/2005
Ohio	Ohio	Miamisburg Environmental Management Project	2008/2005
Ohio	Ohio	Ashtabula Environmental Management Project	2003
Ohio	Oak Ridge	Portsmouth Gaseous Diffusion Plant	2005
South Carolina	Savannah River	Savannah River Site	2038
Tennessee	Oak Ridge	Oak Ridge Reservation (Y-12, ORNL, K-25, ORR)	2013
Texas	Albuquerque	Pantex Plant	2002
Utah	Albuquerque	Monticello Remedial Action Project	2001
Washington	Richland	Hanford Site	2046

Paths to Closure addresses all completed EM sites for which EM is responsible for long-term surveillance and monitoring from Table C.1.

Paths to Closure addresses all sites that still required cleanup as of the beginning of FY 1997 (except for the two FUSRAP sites completed in FY 1997).

[7] Now scheduled for 1999

This page intentionally left blank.

Attachment G

Performance Measure/Estimated Budget Authority Comparison Table

Attachment G
Performance Measure/Estimated Budget Authority Comparison Table

Both the table and definitions are consistent with those provided in the *Environmental Management FY 2000 Performance Based Budget Guidance*, Attachment D.

Performance Measure/Quantity	Estimated BA	Category	Subcategory
WASTE ACTIVITIES			
✓	✓	High Level Waste (m^3)	Storage
✓	✓	High Level Waste (m^3)	Treatment
✓	✓	High Level Waste (canisters)	Canisters Produced
N/A	✓	High Level Waste	Construction
✓	✓	Transuranic Waste (m^3)	Storage
✓	✓	Transuranic Waste (m^3)	Treatment
✓	✓	Transuranic Waste (m^3)	On-Site Disposal
✓	✓	Transuranic Waste (m^3)	Shipped to DOE Disposal Site
N/A	✓	Transuranic Waste (m^3)	Construction
✓	✓	Mixed Low Level Waste (m^3)	Storage
✓	✓	Mixed Low Level Waste (m^3)	Treatment
✓	✓	Mixed Low Level Waste (m^3)	On-Site and Commercial Disposal
✓	✓	Mixed Low Level Waste (m^3)	Shipped to DOE Disposal Site
N/A	✓	Mixed Low Level Waste (m^3)	Construction
✓	✓	Low Level Waste (m^3)	Storage
✓	✓	Low Level Waste (m^3)	Treatment
✓	✓	Low Level Waste (m^3)	On-Site and Commercial Disposal
✓	✓	Low Level Waste (m^3)	Shipped to DOE Disposal Site
N/A	✓	Low Level Waste (m^3)	Construction
✓	✓	Hazardous Waste (metric tons)	DOE On-Site Disposal

Performance Measure/Quantity	Estimated BA	Category	Subcategory
✓	✓	Hazardous Waste (metric tons)	Commercial Waste
N/A	✓	Hazardous Waste (metric tons)	Construction
✓	N/A	Remediation Waste	Remediation Waste Generated
N/A	✓	All Other Waste Types	All Other Waste Types
N/A	✓	All Other Waste Types	Construction
REMEDIATION ACTIVITIES			
✓	✓	Release Sites	Assessments
✓	✓	Release Sites	Cleanups
N/A	✓	Release Sites	Disposal Facility (Design/Construction/ Operation)
N/A	✓	Release Sites	Potentially Responsible Party (PRP) Payments
N/A	✓	Release Sites	Groundwater Remediation
N/A	✓	Release Sites	Provision of Alternative Water Supply
N/A	✓	Release Sites	Post Remedial Action (RA) Long-Term S&M
✓	✓	Facilities	Decommissioning - Assessments
✓	✓	Facilities	Decommissioning-Cleanups
N/A	✓	Facilities	Pre-Decommissioning S&M
NUCLEAR MATERIAL AND SPENT NUCLEAR FUEL (SNF) STABILIZATION & FACILITY DEACTIVATION ACTIVITIES			
✓ -	- ✓	Facilities	-Facilities not yet deactivated/ Facilities Monitored - Surveillance & Maintenance
✓ -	- ✓	Facilities	- Facilities deactivated during period -Deactivation
✓	✓	Facilities	- Facilities in Post-Deactivation Monitoring - Post-Deactivation Long-Term Monitoring
N/A	✓	Facilities	Deactivation - Construction

Performance Measure/Quantity	Estimated BA	Category	Subcategory
N/A	✓	Nuclear Materials	Surveillance & Maintenance
N/A	✓	Nuclear Materials	Stabilization
N/A	✓	Nuclear Materials	Construction
✓	N/A	Nuclear Materials	Stabilized – Plutonium Solution (liters)
✓	N/A	Nuclear Materials	Stabilized – Plutonium Residue (kg bulk)
✓	N/A	Nuclear Materials	Stabilized – Plutonium Metal/Oxides (containers)
✓	N/A	Nuclear Materials	Stabilized – Uranium Solution (liters)
✓	N/A	Nuclear Materials	Stabilized – Uranium in Other Forms (kg bulk)
✓	N/A	Nuclear Materials	Stabilized – Other Nuclear Material in Solution Form (liters)
✓	N/A	Nuclear Materials	Stabilized – Other Nuclear Material in Other Forms (handling units)
✓	N/A	Nuclear Materials	Made Disposition Ready – Plutonium Metal/Oxides or in Other Forms (containers)
✓	N/A	Nuclear Materials	Made Disposition Ready – On-Site – Uranium Solution (liters)
✓	N/A	Nuclear Materials	Made Disposition Ready – Ship Off-Site – Uranium Solution (liters)
✓	N/A	Nuclear Materials	Made Disposition Ready – On-Site – Uranium in Other Forms (kg bulk)
✓	N/A	Nuclear Materials	Made Disposition Ready – Ship Off-Site – Uranium in Other Forms (kg bulk)
✓	N/A	Nuclear Materials	Made Disposition Ready – Other Nuclear Materials in Solution Form (liters)
✓	N/A	Nuclear Materials	Made Disposition Ready – Other Nuclear Material in Other Forms (containers)
	✓	Spent Nuclear Fuel (SNF)	Surveillance & Maintenance

Performance Measure/Quantity	Estimated BA	Category	Subcategory
	✓	SNF	Stabilization
	✓	SNF	Construction
✓	N/A	SNF	SNF in stabilization process, but not yet stabilized (MTHM and m^3)
✓	N/A	SNF	SNF stabilized during period (MTHM and m^3)
✓	N/A	SNF	Stable SNF, not disposition ready (MTHM and m^3)
✓	N/A	SNF	SNF made disposition ready during period (MTHM and m^3)
✓	N/A	SNF	SNF in disposition ready storage (MTHM and m^3)
OPERATIONAL ACTIVITIES			
N/A	✓	Operational	Technical Program Support
N/A	✓	Operational	Conceptual Design Reports
N/A	✓	Operational	Other Project Related Bridge Costs
N/A	✓	Operational (Albuquerque only)	Uranium Leasing
N/A	✓	Operational	Landlord
N/A	✓	Operational	Landlord - Construction
N/A	✓	Operational	Agreements-in-Principle (AIPs)/Grants
N/A	✓	Operational	Security Investigations
N/A	✓	Operational	Nuclear Criticality Safety Training (Field input required for FY 1998 & FY 1999; HQ input required for FY 2000)
MULTI-SITE ACTIVITIES – THIS IS FOR HEADQUARTERS USE ONLY–			
N/A	✓	National Program	Transportation and Packaging Management
N/A	✓	National Program	Emergency Preparedness Program

Performance Measure/Quantity	Estimated BA	Category	Subcategory
N/A	✓	National Program	National Analytical Management Program
N/A	✓	National Program	Pollution Prevention
N/A	✓	National Program	Environmental & Regulatory Analysis
N/A	✓	National Program	Packaging Certification & Safety
N/A	✓	Science and Technology	Risk Policy
N/A	✓	Science and Technology	Science Program
N/A	✓	Science and Technology	Technology Development
N/A	✓	Operational	Intergovernmental Affairs/Public Accountability
N/A	✓	Operational	Technical Training and Education
N/A	✓	Operational	Federal Contribution to UE D&D Fund
N/A	✓	Operational	Uranium/Thorium Reimbursement
N/A	✓	Program Direction	Program Direction

Attachment H

Programmatic Risk Definitions

Attachment H
Programmatic Risk Definitions

Programmatic Risk Categories	Technology	Work Scope Definition	Inter-Site Dependency	Facility/Equipment Limitation (facility only)
5 (high)*	• The technical approach has not been identified for critical or significant portions of the project. • Key technologies do not exist for critical or significant portions of the project. • Current investments do not support the resolution of the project's science and technology needs.	• Project endpoints is not determined or supported by stakeholders and Tribal Nations • Waste/material quantities and characteristics are unknown • Process operations are not identified or supported by stakeholders and Tribal Nations • Final disposition location for waste/material has not been identified	• Activity involves multiple sites • No concurrence has been reached between sites	• Facility does not currently exist and there are no plans for a new facility
4*	• The technical approach has been identified for the majority of the project scope. • Most key technologies have been tested but some exist only at the laboratory scale. • Current investments in science and technology have been identified and adequately support problem resolution.	• Project endpoints is determined but may be controversial to stakeholders and Tribal Nations • Process operations are identified, but may be controversial to stakeholders and Tribal Nations • Final disposition location for waste/material has not been identified and approved	• Activity involves multiple sites, site concurrence has been verbally reached • The Waste Acceptance Criteria (WAC) has not been resolved • No funding has been identified and no schedule for receipt or treatment of the waste/material exists	• Facility exists but does not meet code • Facility does not currently exist but plans for a new facility exist • Facility requires a major modification to be able to disposition waste/material

Programmatic Risk Categories	Technology	Work Scope Definition	Inter-Site Dependency	Facility/Equipment Limitation (facility only)
3*	• The technical approach has been identified for all aspects of the project. • All critical technologies have been identified and have been demonstrated, as a minimum, at a pilot scale. • Current investments in science and technology have been identified and support the demonstration of the required technology at full scale.	• Project endpoints is determined and is excepted to be acceptable to stakeholders and Tribal Nations • Waste/material quantities and characteristics are broadly known • Process operations are identified and are expected to be acceptable to stakeholders and Tribal Nations • Final disposition location for waste/material has been identified and EIS is being prepared	• Activity impacts another site, site concurrence has been verbally reached • Receiving facility is reviewing characterization data to determine WAC acceptability • Funding has been identified but no schedule for receipt or treatment of the waste/material exists	• Facility exists but is not operational • Facility exists and is operational, but currently does not have capacity • Facility requires modification to treat waste/material
2*	• The technical approach has been approved for all aspects of the project. All technical challenges associated with executing the project are fully understood. • All critical technologies are fully developed and demonstrated on site or at another location with a similar waste/material type. • Investments in science and technology, if any, are limited to technical assistance associated with deployment of new technology on site.	• Project endpoints is determined and supported by stakeholders and Tribal Nations • Waste/material quantities and characteristics are well known • Process operations are identified and are supported by stakeholders and Tribal Nations • Final disposition location for waste/material has been identified and EIS ROD is prepared	• Activity doesn't impact another site or Site concurrence has been documented if multiple sites are impacted • Receiving facility has verified WAC acceptability • Funding has been identified but no schedule for receipt or treatment of the waste/material exists	• Equipment requires minor modification to disposition waste/material • Operating commercial facility exists, but contracts are not in place

Programmatic Risk Categories	Technology	Work Scope Definition	Inter-Site Dependency	Facility/Equipment Limitation (facility only)
1 (low)*	• The technical approach is being fully executed. All critical technologies are operating according to specification. • Investments in science and technology are not required to meet cost and schedule requirements.	• Project endpoints is determined and supported by stakeholders and Tribal Nations • Waste/material quantities and characteristics are well known • Process operations are identified and are supported by stakeholders and Tribal Nations • Final disposition location for waste/material has been identified and EIS ROD is pending	• Activity doesn't impact another site or Site concurrence has been documented if multiple sites involved • Receiving facility has verified WAC acceptability • Funding is identified in an approved PBS and facility is ready to receive the waste/material	• Facility/equipment has sufficient capacity to handle all planned waste/material receipts • Facility is operational • Commercial facility is operational and contracts are in place

*The numerical categories used to determine level of Programmatic Risk will be converted to colored symbols on waste/material disposition maps. Category 1 and 2 are shown as a green circle, Categories 3 is shown as a yellow triangle, and Categories 4 and 5 are shown as a red square.

Attachment I

Data Gaps from 1997 Data Collection

Attachment I
Data Gaps from 1997 Data Collection

Site	Data Gaps Identified
General	• Spent Nuclear Fuel performance metrics on the PBS were not traceable through the life cycle of the fuel. • Spent Nuclear Fuel LTSM costs for many sites do not appear to be accurately represented. • Inconsistencies in reporting LTSM costs in general. • Almost every Operations/Field Office (except for Carlsbad) has projects for which no milestones have been identified. Each project should have a reasonable amount of milestones for execution tracking. • At each Operations/Field office there are release site and facility performance metric data that indicate a completion date subsequent to the Geographic Site and/or Project completion date.
	Stewardship Data Limitations/Gaps • Numerous data gaps and inconsistencies were evident in the cost estimates for long-term stewardship activities. • Data on the afforded future site uses were poorly populated and acres anticipated for each future use were often not reported. • Sites where the Office of Environmental Management is not the landlord often did not estimate long-term stewardship activities or costs that were expected to be outside of the responsibility of the EM Program. • The specific program expected to conduct and fund stewardship activities was not identified for many sites. • Current information on the projected cleanup levels were not available for many of the sites being remediated by the Army Corps of Engineers under the Formerly Utilized Sites Remedial Action Program although DOE is expected to retain stewardship responsibilities for many of these sites.

Site	Data Gaps Identified
Albuquerque	Release Site and Facility Data • Release Sites and Facilities lack planned and actual assessment dates. • Many completed Release Sites do not have the "No Action" field or the "Completion Status" field populated which should be populated upon completion. • Several Geographic Sites have Release Sites and Facilities Completion Dates after the Geographic Site Completion Date. • At Los Alamos National Laboratory there was a mistake in the number of facilities being deactivated (6,608 vs ~ 1,900 at other sites). [Corrections were made to "two" facilities via Fax update. Please check that the number of facilities are reported, not the number of square feet encompassed in the facilities.]
	Budget • In FY 2000 mid-course budget data did not provide source PBS for there new projects on new PBS entry table. The new PBSs were AL026, AL027, and AL028.
	Critical Closure Path • SSL critical event start and end dates differ, but should be the same if it is an event. Examples include WIPP opens in May 1998 (Project 0008), Public Comment on OU 111 Proposed Plan (Project 0476), and Work Off at Historical TRU (Project 0134).
Chicago	Contracting Data • In Section 0.6.1, Contracting Type breakdown does not sum to 100%.
	Critical Closure Path • SSL critical event start and end dates differ but should be the same for the following events: Turn responsibility for Site A/Plot M S&M over to Grand Junction Project Office (Project 0030), Turn responsibility for PRP payments over to ER (Project 0032), and Environmental Studied Enrichment Program at UNC, Pembroke (Project 0709).
Carlsbad	No major issues identified
Headquarters	Baseline Information ◦ New projects added to the project valid list through FY 2000 April 15 budget request with no supporting baseline information. ◦ Valid list of Headquarters PBSs were not well defined.
	Critical Closure Path Data • Most projects have no milestones associated with them.
	Budget • In FY 2000 mid-course budget data, Project 0161 was assigned budget values, but is not a current project.

Site	Data Gaps Identified
Idaho	Release Site and Facility Data • Many completed Release Sites and Facilities have unpopulated "Completion Status" field which should be populated upon completion.
	Contracting Data • In Section 0.6.1, Contracting Type breakdown does not sum to 100%.
	Performance Measure Metrics • For Project ID-WM-101, MLLW volume reduced has negative performance measure metrics.
Nevada	Release Site and Facility Data • Most release sites lack planned/actual assessment and completion dates. • Many completed release sites have the "No Action" field unpopulated which should be populated upon completion.
	IPL • In FY 2000 IPL, did not provide compliance impact for several projects. Examples include NV 201/NV 330, NV 202, and NV 224(+). • In FY 2000 mid-course budget data, new PBS "Program Integration" has two source PBSs (NV201 and NV 330) and two program elements (ER and WM). Need to designate the new PBS program element.
	Performance Measure Metrics • For Project NV360, MLLW new waste has negative performance measure metric.

Site	Data Gaps Identified
Oak Ridge	Release Sites and Facilities Data • Many Release Sites and Facilities have not been specified as a release site or a facility. • Many completed Release Sites and Facilities have unpopulated "No Action" and "Completion Status" fields which should be populated upon completion. • Several Release Sites and Facilities have actual assessment dates without planned assessment dates.
	Cost ◦ In non-EM cost data, values reported do not add to 100% and no non-EM organization was selected for OR-47201. • ORR waste management costs appear to have an unrealistically high percentage of EM versus non-EM costs. EM waste management costs extend beyond the site completion dates.
	Critical Closure Path • SSL critical event start and end dates differ, but should be the same if it is an event. Examples include Complete TCLP FFCA (Project 0318), Treatment of Mixed Wastes at C-400-0 (Project 0318), and UEFPC Soil Remediation (Project 0306). • Milestones for projects OR-43201 and OR-44303 do not have DNFSB requirement numbers where DNFSB was designated "yes".
Oakland	Release Sites and Facilities Data • Several Release Sites and Facilities lack both actual and planned assessment dates. • Many completed Release Sites and Facilities have unpopulated "No Action" and "Completion Status" fields which should be populated upon completion.
	Critical Closure Path Data • In SSL- Part C, critical events have scheduled start date after schedule end date. Examples activities include Buildout of TF518 (OAK-001), Pit 6 Capping (OK-002), and Site 300 Wide ROD (OK-002). • SSL critical event start and end dates differ but should be the same if it is an event. Examples include Site Remediation (Project 0588), Close out of EM 40 Project (Project Code 0267), and Close out of EM 30 Project (Project Code 0275).
	IPL ◦ In FY 2000, IPL did not provide compliance impact for any IPL elements.

Site	Data Gaps Identified
Ohio	Release Site and Facility Data • Many release sites have actual assessment/completion dates without planned assessment/completion dates. • Many completed facilities have unpopulated "No Action" and "Completion Status" fields which should be populated upon completion.
	Critical Closure Path • SSL critical even start and end dates differ but should be the same if it is an event. Examples include Complete Phase 1 HLW Vitrification Campaign (Project OH-WV-01), Begin removal of WV TRU (Project OH-WV-02), and Ship WV SNF to INEEL (OH-WV-03).
Richland	Release Site and Facility Data • Most facilities lack planned and actual assessment and completion dates. • Many uncompleted Release Sites and Facilities have populated the "No Action" and "Completion Status" fields which should only be populated upon completion.
	Cost • No Life-cycle Costs by category were provided in the Part B. They were provided in old format at the PBS level, which made data collection tedious. • Non-EM costs included in cost baseline do not add to 100% for defense programs in 2008 through 2030.
	Performance Measure Metrics • For RI- WM04, performance measure metrics are a negative value for LLW volume reduced.

Site	Data Gaps Identified
Rocky Flats	Release Sites and Facilities Data • Several completed release sites have unpopulated "Completion Status" fields which should be populated upon completion. • Several release sites not yet completed have information in "No Action" and Completion Status" fields which should only be populated upon completion.
	Cost ◦ In FY 2000 IPL, dollar amounts were not split into separate driver categories. All dollar amounts were in the compliance category (1), this is suspect. • Costs for Program Direction (reported in Headquarters PBS) were included in the Program Management PBS (Project RF029). Program Direction costs should be reported only in Headquarters PBS. In addition, for planned costs from 2020-2040 unescalated dollars were submitted in escalated cost field.
	Critical Closure Path • Milestones for projects RF012 and RF030 do not have DNFSB requirement numbers where DNFSB was designated "yes".
Savannah River	Release Site and Facility Data • Many completed release sites have unpopulated "Completion Status" fields which should be populated upon completion. • No facility assessments or decommissionings have been identified.
	Critical Closure Path • SSL critical event start and end dates differ but should be the same if it is an event. Examples include Flood Plain Swamp IOU Remediated (Project 0051), SRL Basin Seepage RA Start (Project 0056), and L Reactor Deactivated (Project 0509). • In milestone data, DNFSB requirement number was not included where DNFSB was designated "yes". Examples include Project start (Project SR-IN06), Complete design of APSF (Project SR-NM03), and Complete dissolving SRS SNF (SR-NM02-06).
	Cost ◦ In Section A. 2-16, no non-EM organization was designated for non-EM costs included in baseline.

This page intentionally left blank.

Attachment J

Example Summary of High Programmatic Risk

Attachment J
Example Summary of High Programmatic Risk

Site(s) should provide a list of the five to ten most serious technological, work scope, and inter-site or other programmatic risks at the site(s). Each item should be accompanied by a brief narrative describing the cause of the risks and the responsible parties for addressing them. This list, in addition to providing an excellent identification tool, will also allow the sites to identify to Headquarters those issues that they believe require Headquarters support. The list should not identify the loss of current budgets as programmatic risk; budgets should be assumed to match current projections.

The following table provides an example of the significant programmatic risks at Rocky Flats Environmental Technology Site (RFETS).

Programmatic Risk	Narrative	Responsibility for the Path Forward
RFETS has a considerable inventory of plutonium which must be transferred to another location in order for the buildings to be closed and demolished.	The Paths to Closure document assumes a shipment schedule and delays will result in delay of final closure. There are two NEPA actions that must be completed in order to complete the transfer. (1) Validate3 NEPA documentation for material which must go to the Savannah River Site (2) Complete NEPA documentation for surplus plutonium disposition.	MD-1 EH-1 EM-1
RFETS has an inventory of "scrub alloy" which is an alloy of Plutonium which must be shipped to the Savannah River Site.	The Paths to Closure schedule assumes a shipment schedule and any delays will result in delay of the final closure of RFETS. Shipments must be initiated by June 1999 and completed by December 1999	Manager, RFETS Manager, SRS
It is estimated that RFETS will generate 9500 cubic meters of TRU waste through closure activities of the buildings and surrounding areas. This material must be removed from the site.	The closure schedule for RFETS was developed based upon assumptions of the availability of WIPP in August 1988. Projected delays in the opening will have negative impacts on the closure schedule. Invoked contingencies will absorb resources that are programmed for closure work rather that diversion to storage activities. Overall impact will depend on the actual opening date of WIPP.	GC-1 EM-1

Programmatic Risk	Narrative	Responsibility for the Path Forward
RFETS has approximately 1,200 cubic feet of classified records and 900 cubic feet of records that are radiological contaminated or are contaminated with beryllium that must be removed from the site to complete closure.	The Path to Closure assumes a removal schedule for these records that will allow for building closure. A solution must be in effect by January 1999.	HR-1 EM-1 Manager, RFETS.
The current RFETS contract with the Integrating management Contractor ends in July 2000 and a new contract must be in effect at that time.	Without a contract in effect, the DOE would not have proper staffing to operate the basic safety and security infrastructure. The solicitation package must be developed and issued. A plan and schedule for the entire process must be developed.	DOE, Headquarters Manager, RFETS

This page intentionally left blank.

Attachment K

Acronym List

Attachment K
Acronym List

AVS	Analysis and Visualization System
B&R	Budget and Reporting
BA	Budget Authority
CAIRS	Computerized Accident/Incident Reporting System
CAO	Carlsbad Area Office
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFO	Chief Financial Office
CIO	Chief Information Officer
CPQT	Consolidated Project Quantity Table
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
DOT	Department of Transportation
EIS	Environmental Impact Statement
EM	Environmental Management
EM-24	Office of Strategic Planning and Analysis
ER	Environmental Restoration
FETC	Federal Energy Technology Center
FFCAct	Federal Facility Compliance Act
FIMS	Facilities Information Management System
FMSIC	Financial Management Systems Improvement Council
FTE	Full-time Equivalent
FTP	File Transfer Protocol
FY	Fiscal Year
GAO	General Accounting Office
GPRA	Government Performance and Results Act
HLW	High Level Waste
ID	Identification
IPABS	Integrated Planning, Accountability, and Budgeting System
IPABS-IS	Integrated Planning, Accountability, and Budgeting System- Information System
IPL	Integrated Priority List
LLW	Low Level Waste
LTS&M	Long-Term Surveillance and Monitoring
MACT	Maximum Achievable Control Technology
MARS	Management Analysis and Reporting System
MLLW	Mixed Low Level Waste
NEPA	National Environmental Policy Act
NMMSS	Nuclear Materials Management and Safeguards System
ODS	Operations Office Data Summary
OMB	Office of Management and Budget
ORNL	Oak Ridge National Laboratory
ORPS	Occurrence Reporting and Processing System
PBS	Project Baseline Summary
PEIS	Programmatic Environmental Impact Statement
PIT	Process Improvement Team
PTS	Progress Tracking System

P/W/E	Public, Worker, Environment
QC	Quality Control
QMR	Quarterly Management Review
R&D	Research and Development
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RFETS	Rocky Flats Environmental Technology Site
SDD	Stream Disposition Data
SNF	Spent Nuclear Fuel
SSL	Site Summary Level
STCG	Site Technology Coordination Group
TBD	To Be Determined
TRU	Transuranic
TSCA	Toxic Substances Control Act
TTP	Technology Task Plan
WIPP	Waste Isolation Pilot Plant
WM PEIS	Waste Management Programmatic Environmental Impact Statement

This page intentionally left blank.